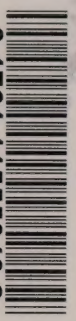


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Held at: Marconi Club
London
Ontario

Date: Wednesday, October 24, 1990

Volume No.: 4

B E F O R E :

MR. BLAIR SEABORN	Chairman
MS. LOUISE ROY	Member
DR. LOIS WILSON	Member
MR. PETER van VLIET	Member
DR. LIONEL REESE	Member
DR. LOUIS LaPIERRE	Member
DR. WILLIAM FYFFE	Member

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HEARING BY THE FEDERAL ENVIRONMENTAL ASSESSMENT
REVIEW OFFICE ON NUCLEAR FUEL WASTE MANAGEMENT.

SCOPING MEETING

Hearing held at the Marconi Club,
London, Ontario, on Wednesday,
October 24, 1990, commencing at 2:05 p.m.

VOLUME 4

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DR. LIONEL REESE	Member
DR. LOUIS LaPIERRE	Member
DR. WILLIAM FYFFE	Member



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A P P E A R A N C E S

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A. RANNI

Private Citizen

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J. CUMMINS

Private Citizen

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J. PRICE

Private Citizen

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P R E S E N T A T I O N B Y :

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A. Ranni

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J. Cummins

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1 ---On commencing at 2:05 p.m.

2 THE CHAIRMAN: Good afternoon. I am sorry
3 to say that a couple of the members of our panel seem to
4 have been delayed a little bit en route between Oshawa
5 and London. We were in Oshawa last night. But I expect
6 that they will be along shortly and I believe we should
7 get the meeting under way with the members of the panel
8 who are here and with all of you who have been so kind
9 as to turn out.

10 I welcome you to this scoping meeting
11 under the auspices of the environmental assessment panel
12 which is reviewing the nuclear fuel waste management and
13 disposal concept. The panel was appointed by the
14 Minister of the Environment in October of 1989.

15 I would like to introduce to you the
16 members of the panel who are here. Beginning at my
17 left, far right of the table from your perspective, Dr.
18 William Fyffe of this city who is a professor in the
19 department of geology and dean of the faculty of
20 sciences at the University of Western Ontario.

21 On my immediate left Mr. Peter van Vliet,
22 a mechanical engineer in Regina, who is also a member of
23 the senate of the University of Regina.

24 To my immediate right, Dr. Lois Wilson,
25 president of the World Council of Churches, co-director



1 of the Ecumenical Forum of Canada, living and based in
2 Toronto.

3 There are three other members whom we
4 expect to come momentarily. Let me just mention their
5 names now and you will undoubtedly be able to identify
6 them as they engage in some of the questioning later on.
7 Dr. Louis LaPierre is a professor in the department of
8 biology at the University of Moncton and chairman of the
9 environmental council of the province of New Brunswick.

10 Dr. Lionel Reese, also of this city of
11 London, is a physician at St. Joseph's Hospital, and a
12 professor in the department of diagnostic radiology,
13 nuclear medicine, at the University of Western Ontario.

14 And Ms. Louise Roy, an environmental and
15 public affairs consultant, who resides in Montreal. She
16 is currently vice president of the Quebec Foundation of
17 the Environment and a member of the Canadian
18 Environmental Assessment Research Council.

19 My name is Blair Seaborn. I am chairman
20 of the panel and I reside in Ottawa. I am retired from
21 the public service but I served previously as Deputy
22 Minister of the Environment and Canadian chairman of the
23 international joint commission.

24 I would like to introduce also, and for
25 those of you who have not yet met them, the members of



1 the panel's secretariat, Mr. Bob Greyell, the executive
2 secretary, who is at the table at this side of the hall.
3 And arriving shortly is the driver of the other car, Ms
4 Susan Toller, an environmental analyst assisting the
5 panel who will be when she comes at the back of the
6 room. I can assure you that the Secretariat are there
7 to provide you with any information you may need about
8 this review.

9 The review is being conducted in
10 accordance with the federal Environmental Assessment and
11 Review Process, E-A-R-P, EARP. This process ensures
12 that the environmental implications of proposals for
13 which the federal government has decision-making
14 authority are fully considered as early as possible in
15 the planning process and before irrevocable decisions
16 have been made.

17 I hope that some of you may have had the
18 opportunity to receive information on this review
19 process and on the proposal of Atomic Energy of Canada
20 Limited at the open houses which were held in various
21 centres in May and June of this year.

22 The panel has been asked in part to
23 examine the nuclear fuel waste management and disposal
24 concept which is a proposal for permanent disposal of
25 used nuclear fuel deep in the granitic rock of the



1 Canadian Shield. This proposal would see the used fuel
2 sealed inside corrosion-resistant containers and placed
3 in holes drilled in the floor of the room inside a
4 disposal vault. The vault would in some ways resemble a
5 deep mine and would contain the used fuel in an area of
6 approximately four square kilometres.

7 Let me say a few more words about the
8 panel's mandate. The terms of reference state that the
9 panel is to review the safety and acceptability of the
10 concept for geological disposal of nuclear fuel wastes
11 in Canada as proposed by Atomic Energy of Canada.

12 In addition to the AECL proposal, we shall
13 examine a broad range of nuclear fuel waste management
14 issues including long-term management, transport, and
15 the environmental, social, and economic effects. We
16 shall look at approaches for nuclear fuel waste disposal
17 being developed elsewhere in the world.

18 Since site selection will not occur until
19 the disposal concept has been accepted as safe, the
20 panel will not consider any specific sites, but it will
21 review the potential availability of sites and the
22 methodology required for a site characterization.

23 I would also like to say a few words about
24 what is not in the panel's mandate and will not be
25 addressed in this review: the energy policies of Canada



1 and the provinces; the role of nuclear energy within
2 these policies, including the construction, operation
3 and safety of new or existing nuclear power plants; fuel
4 reprocessing as an energy policy; and the military
5 applications of nuclear technology. All of these are
6 excluded from our mandate.

7 I would like to be very clear, however,
8 that all the members of the panel are very much aware of
9 the broader concerns relating to the use of nuclear
10 materials and particularly the use of nuclear power for
11 the generation of electricity.

12 I understand that discussions are now
13 actively under way and progressing well in Ottawa
14 between two key departments, the Department of Energy,
15 Mines and Resources on the one hand and the Department
16 of the Environment on the other, concerning a broader
17 review of the health and environmental implications of
18 the various methods of generating electricity. I hope
19 that those discussions will soon result in getting that
20 review under way, the review of the broader look.

21 The purpose of the scoping meetings is to
22 allow participants to identify issues that need to be
23 addressed in the environmental impact statement that is
24 to be prepared by Atomic Energy of Canada Limited.

25 The panel is not requesting the



1 presentation of opinions on the substance of the
2 disposal concept at this time. Public hearings will be
3 held later to discuss whether AECL's eventual proposal
4 is an acceptable one. Scoping meetings, the present set
5 of meetings, enable the participants to assist the panel
6 in identifying those issues that are of concern and
7 questions which need answers, questions which must be
8 answered within the environmental impact statement.

9 At the conclusion of this series of
10 meetings in a number of centres across the country, the
11 panel will prepare draft guidelines for the preparation
12 of the environmental impact statement. We shall invite
13 public comments on these draft guidelines over a period
14 of at least 30 days.

15 After consideration of these comments, the
16 panel will finalize the guidelines and issue them as
17 instructions to AECL. Thereafter, AECL will undertake
18 what will be a very major task of preparing a
19 comprehensive environmental impact statement; a process
20 which may well take a year to a year and a half. When
21 it has completed that statement and submitted it to the
22 panel, it will be available, made available to the
23 public, and will be out to the public for at least a
24 90-day period for public review.

25 To assist in the evaluation of scientific



1 and technical matters, a scientific review group of
2 distinguished independent experts has been established
3 by the panel to examine the safety and scientific
4 acceptability of AECL's disposal concept. A report of
5 their findings and recommendations will be submitted to
6 the panel who will distribute that paper also to the
7 public.

8 Once we are satisfied that the AECL has
9 addressed satisfactorily all the items identified in our
10 guidelines, we will hold the formal and public hearings.
11 Participants will be asked to discuss the acceptability
12 of AECL's disposal concept in detail at this stage of
13 the review and that, I emphasize, will be I would think
14 at least a year and a half from this present time. The
15 panel will consider all comments submitted to it and
16 will prepare its report to the Ministers of the
17 Environment and Energy, Mines and Resources as our final
18 act.

19 The present scoping meetings will be
20 conducted according to the meeting procedures published
21 on August 24th of this year. The panel would appreciate
22 it if review participants would restrict themselves to
23 the identification of issues within the panel's mandate,
24 and I ask that those registered to speak attempt to
25 summarize their concerns in 15 minutes unless they have



1 previously requested an additional 10 minutes' time.
2 The panel will pay equal attention to written and to
3 oral statements.

4 Participants who have registered in
5 advance will be asked to present their views to the
6 panel so that various members of the panel may then ask
7 questions of clarification following each presentation
8 to be sure that we have fully understood the import of
9 your comments.

10 Anyone who would like to make a
11 presentation to the panel but who is not yet registered
12 may, as we have already indicated, speak to Mr. Greyell
13 or Ms. Toller now or in the course of the meeting. We
14 will do our best to accommodate all those who may not
15 yet have registered but this of course may depend upon
16 the time remaining at the end of the meeting.

17 There are court reporters here to record
18 the proceedings of each meeting and transcripts will be
19 made available to designated libraries. A compilation
20 of written submissions will also be available from the
21 federal environmental assessment and review office in
22 London.

23 And I am pleased to say that just as I
24 complete my opening remarks, which they have heard
25 before in any event, the other members of the panel have



1 arrived to join us. I have already described who they
2 are, but Dr. Reese in the centre on this side;
3 immediately to the right of Dr. Wilson is Dr. LaPierre;
4 and Ms. Roy on the far right.

5 May I now then with this introduction and
6 fortunately with the arrival of the full panel ask that
7 the first of our participants come forward, Mr. Arvo
8 Ranni. If you would come up here, using the microphone,
9 then you can speak to us and speak to the members of the
10 audience at the same time, and we look forward to your
11 presentation. Mr. Ranni.

12 PRESENTATION BY MR. RANNI:

13 Mr. Chairman and honourable members of the
14 panel, the views I will be expressing are my own. While
15 I am not representing any particular group nor
16 organization nor the interests thereof, my views have
17 been influenced undoubtedly by my background as a civil
18 design engineer in the nuclear power industry for six
19 years, from the beginning of 1976 to the end of 1981.

20 Perhaps most noteworthy in this respect
21 was a 1980 study at Ontario Hydro on options for
22 extended retrievable storage of irradiated fuel, a study
23 in which I was a departmental representative.

24 Although I have been virtually absent from
~25 the nuclear scene since 1981, there are certain issues,



1 concerns, and perspectives which I would like to bring
2 forward at this time.

3 There are really two approaches to the
4 long-term management of high level waste after removal
5 from temporary storage at the reactor sites: one,
6 disposal; or two, extended retrievable storage in a
7 central repository followed by disposal.

8 Sooner or later, high level waste, either
9 used fuel or the byproducts of reprocessing used fuel,
10 will have to be disposed of, but this disposal could
11 occur within decades or it could occur centuries from
12 now. Clearly the focus in the AECL concept is on early
13 disposal but it is not clear whether early disposal is
14 justifiable.

15 First, are we sure that we want to dispose
16 of high level waste? Are we sure that future
17 generations, especially during the next few centuries,
18 will hold the same view of the matter? In short, are we
19 going to elaborate lengths to dispose of materials - not
20 only the fuel itself but the containment materials as
21 well - that could be a resource for the near and/or more
22 distant future?

23 The problem is that we do not know and
24 likely will not know in the next few years the nuclear
25 profile of the future nor future energy policy with



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1 regard to fuel reprocessing nor future attitudes towards
2 nuclear energy nor a host of other factors that impact
3 heavily on the choice that has to be made between
4 disposal and extended storage.

5 Even if we did want early disposal, does
6 the AECL concept provide a safe and reliable means of
7 doing so? Can we be sure that some future generation or
8 generations will not be forced to dig up the buried
9 materials to carry out remedial work or suffer the
10 health and other environmental consequences of failure
11 to do so? And to what dangers will they be exposed if
12 they excavate to carry out this remedial work or
13 whatever?

14 One of the concerns about retrievability
15 involves the performance of the rather thin titanium
16 containers used in the AECL concept compared to the much
17 thicker copper container used in the otherwise very
18 similar concept proposed by the Swedish Nuclear Fuel and
19 Waste Management Company. Rupture, corrosion, or any
20 damage to or weakening of the containment system by any
21 means would of course have serious repercussions for
22 retrievability.

23 With respect to the Swedish concept, it
24 could be noted that Sweden is committed to getting out
25 of the nuclear energy business in the near future, so



1 disposal of used fuel make sense, provided that there is
2 confidence in their method of disposal. The same
3 situation does not necessarily exist in Canada.

4 On the other hand, if access to that fuel
5 is considered desirable or if a safe and reliable
6 disposal facility is unlikely to be available for a
7 lengthy period of time, then extended storage is the
8 option of choice. The extended storage concepts range
9 from the concrete canister concept developed at Ontario
10 Hydro and which has the advantage that canisters can be
11 constructed as required but the disadvantage that the
12 canisters have a limited, if lengthy, storage life, to
13 the deep underground convection-cooled rock vault
14 concept which may be converted to a permanent
15 repository, if desired, but which has a long lead time
16 to site and construct. Thus, there are extended storage
17 concepts that are strictly extended storage concepts and
18 there are extended storage concepts that can be
19 converted to a disposal facility if desired.

20 In the present environment of uncertainty,
21 a concept that could be operated as either an extended
22 storage or a disposal facility allows maximum
23 flexibility in the exercise of options. It therefore
24 seems worthwhile to ask: Could the AECL concept be
25 modified to operate as an extended storage concept



1 initially while maintaining the option of using it as a
2 disposal concept later? Well, it appears we can eat our
3 cake and have it too, but there are ramifications with
4 respect to the criteria that apply.

5 As noted, long-term management concepts
6 normally fall into one of two categories: one, disposal
7 concepts; or, two, extended storage concepts. This
8 distinction is crucial because entirely different
9 criteria apply to each category throughout the
10 evaluation. For example, for a disposal scheme, ideal
11 site characteristics, "dry, stable, desolate", are of
12 primary importance while transportation considerations
13 are secondary. However, for an extended storage
14 concept, the transportation considerations become more
15 significant in relation to the siting characteristics.

16 Thus, for instance, transport of high
17 level waste to remote locations makes most sense if it
18 is destined for final disposal and least sense if it
19 must be returned for reprocessing and reuse.

20 Similarly the criteria for shielding,
21 monitoring, security, et cetera are quite different for
22 disposal and extended storage concepts. This
23 consideration impacts forcefully on those extended
24 storage concepts which could be converted to a disposal
25 concept because the facility must satisfy both sets of



1 criteria during its functional life. It is predictable
2 that siting options which minimize transportation
3 difficulties would be favoured and a lower emphasis
4 would be put on "desolateness". This may significantly
5 reduce the number of sites that are available for
6 consideration.

7 There is another consequence of
8 modification of the AECL concept to enhance
9 retrievability or extended storage concept. So long as
10 the AECL concept is strictly a disposal concept, it has
11 in effect little or no competition. However, as soon as
12 it is modified, it faces competition; most prominent of
13 which might be the deep underground convection- cooled
14 rock vault concept.

15 The effect of this competition may have to
16 be assessed but doing the extra work is the only way to
17 make a sound decisions and know that a sound decision
18 has been made.

19 We are dealing with extraordinary concepts
20 and time frames, so it is worth taking the time that is
21 necessary to arrive not only at the most reliable option
22 but also at the best designed that is reasonably
23 attainable. Thank you.

24 THE CHAIRMAN: Could you just stay for a
25 moment in case there are some points of elaboration or



1 clarification which the other panel members might want
2 to put to you. And I would like to thank you for a
3 thoughtful presentation which you just delivered to us.

4 Are there any questions which my
5 colleagues would like to put to Mr. Ranni now that we
6 have him here. (No response) I think you have made
7 your point very clearly then and we do not need any
8 further clarification. Thank you very much, Mr. Ranni.
9 ---Mr. Ranni withdraws.

10 THE CHAIRMAN: The second participant in
11 this afternoon's session is Dr. Joseph Cummins of the
12 University of Western Ontario. And I would ask Dr.
13 Cummins if he would come forward now, thank you very
14 much, to present his views to us.

15 PRESENTATION BY DR. CUMMINS:

16 Thank you very much. I am Joe Cummins. I
17 am a professor at the University of Western Ontario. I
18 teach genetics at that university.

19 Before I begin, I would like to point out
20 that -- mildly criticize, perhaps, the organization of
21 the meeting in finding an isolated locale. I think it
22 is appropriate in meetings of this type that a more
23 central locale could be found perhaps by the consultants
24 to the group. Putting it out here in industrial east
25 London in the Marconi Club prevents, I believe, a large



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1 number of possible participants, including students, and
2 other members of the public from participating.

3 And there tends to be in the environmental
4 movement a rather cynical view that this is a strategy
5 devised by the organizers of the meeting to avoid
6 confrontation with the public, and so I think it would
7 be appropriate to consider at least having these
8 meetings in a central locale and to have them adequately
9 publicized before the meetings. Thank you.

10 Now the issue that I wish to address is
11 perhaps more peripheral to the main mandate of the
12 panel, but I think it's one that has not been discussed
13 previously and I think it will reflect on the success or
14 failure of the long-term aspects of the panel's
15 consideration of the geologic storage.

16 The area that I want to deal with is the
17 dry storage of spent fuel rods in these dry storage
18 moduli, or I call them cheap and rinky dink storage
19 arrangements, that to me they are in learning about them
20 a couple of years ago I began to grow concerned and as I
21 watched them develop and expand, I become more and more
22 concerned.

23 Spent nuclear fuel is stored in dry
24 storage moduli. And the dry storage moduli are used for
25 nuclear waste storage at Pickering and the Bruce,



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1 basically the shards of Douglas Point. The
2 decommissioned reactors from Douglas Point have been
3 stored in dry storage moduli.

4 Now both the document "How Ontario Hydro
5 Stores Radioactive Materials" by Ontario Hydro and
6 "Managing Canada's Nuclear Fuel wastes", that's an AECL
7 publication, acknowledge that DSM storage of spent fuel
8 rods will be greatly increased to accommodate increasing
9 fuel use in the near future.

10 DSM is preferred because it is cheap. And
11 my reference there is a current book. Currently, Canada
12 seems to be the only country promoting cheap storage in
13 these dry storage moduli and that's based on my readings
14 in these books, but the information is not, like many
15 things dealing with atomic energy, is not very
16 comprehensive. Korea, south Korea, I understand, has
17 recently purchased the flimsy DSM units to expand their
18 nuclear power capacity.

19 Now, previously, fuel rods have been
20 stored under water in swimming pools since the beginning
21 of nuclear power. In a 1986 report by Carter, there was
22 a report that dry storage moduli were introduced into
23 Pickering following a retubing program which was of
24 course not predicted.

25 The first DSM were given names including



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1 Sleepy, Sneezy, Dopey, and Grumpy, but the demand soon
2 exceeded available dwarfs and newer units are designated
3 by number thereafter. I thought it was rather facetious
4 and coy of Ontario Hydro to call their units after the
5 seven dwarfs, but the humour is in a sense almost lost
6 on me in many ways because the dry storage moduli are
7 stored very near the shores of lake Ontario at
8 Pickering; in other words, they are within a stone's
9 throw of the shores of Lake Ontario. And I appreciated
10 the history, the humour in calling these units after
11 dwarfs, but I didn't quite get the joke of putting them
12 next to Lake Ontario.

13 Now the Bruce nuclear power station
14 employed DSMs to store wastes from decommissioned
15 reactors at Douglas Point. And again the DSM are stored
16 very near the shores of Lake Huron. Interestingly, I am
17 not aware of any public input into the selection of
18 sites for DSM placement nor am I aware of public input
19 into the policy allowing such placement. The
20 accelerated use of DSM for fuel storage has not been
21 discussed publicly. Storage of DSM near the shores of
22 Lake Ontario and Lake Huron seems to me an act of insane
23 bravado.

24 According to the document "Managing
25 Canada's Nuclear Fuel Wastes", used CANDU fuel contains



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1 unchanged uranium, uranium fission products, plutonium
2 and other actinides, radioactive fission products, and
3 stable fission products. Even a minor accident at the
4 DSM site would lead to a monumental disaster in the
5 Great Lakes. The Lakes would not be suitable for
6 drinking water or recreation purposes and that might go
7 on for several hundred years.

8 So it seems to me again an act of insane
9 bravado to have these units sitting near and adjacent to
10 the shores of the lake. In the event of a mechanical
11 accident in these units, then the Lakes would be lost to
12 human use for many, many years, probably hundreds of
13 years.

14 Finally I asked the question: Will DSMs
15 spontaneously combust? And I am not joking here.
16 Nuclear waste stored in a liquid tank near Kyshtym in
17 the Soviet Union released radioactivity. That was to
18 the extent of 40 per cent of the Chernoybl release and
19 that was in 1957, but unreported until a couple of
20 months ago -- to the public, that is, the world public.
21 A tank in Hanford, Washington, burps releasing hydrogen
22 gas and nitrous oxide, according to the New Scientist in
23 October 1990.

24 I maintain that the Canadian DSM must be
25 airtight to prevent airborne radioactive release but the



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1 evidence is that radioactivity, this high level
2 radioactivity, causes breakdown of residual water and
3 hydrogen containing chemicals to release explosive
4 hydrogen gas.

5 A burp by one of Pickering's dwarfs, that
6 is to say, a DSM, followed by a minor explosion, would
7 release enough radioactivity to cause evacuation of
8 north Metro Toronto; that is to say, Scarborough,
9 Pickering, and Ajax at the very minimum, along with the
10 loss of Lake Ontario uses.

11 I formulated a few questions and I will
12 try to answer them as best as I can:

13 Are DSMs safe? Are dry storage modules
14 safe? I don't believe they are.

15 Two, why are DSMs located within metres of
16 the Great Lakes, and I see no rational basis, no
17 rational explanation for that whatsoever, and one would
18 hope that some official body would address that at some
19 point or certainly the public should address it.

20 Thirdly, were DSMs placed without public
21 input and environmental review? And the answer is to
22 the best of my knowledge, entirely and absolutely yes,
23 With no public review, no public input into any of these
24 decisions.

25 Fourthly, was the policy to expand DSM use



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1 subject to public review and environmental assessment?
2 And to my best knowledge, there is certainly no such
3 process was involved; in other words, what I am saying
4 is that Canadian nuclear energy seems to have taken off
5 in a rather quixotic air operation involving expansion
6 of moduli which can only reasonably be described as
7 dreadfully worrisome.

8 So based on the scant evidence available
9 in published documents, I form the opinion that DSM are
10 threats to Ontario's environment through mechanical
11 accidents or hydrogen gas buildup. Thank you.

12 THE CHAIRMAN: Thank you, Dr. Cummins. I
13 wonder if members of the panel will wish to put any
14 points to Dr. Cummins that he may wish to clarify or
15 amplify what he has had to say in his short
16 presentation.

17 Mr. van Vliet.

18 MR. VAN VLIET: Dr. Cummins, you as a
19 professor at the University of Western Ontario
20 presumably deal mostly in facts rather than in opinions
21 when it comes to scientific phenomenon.

22 DR. CUMMINS: Oh, yes, yes.

23 MR. VAN VLIET: You have made some rather
24 startling statements in your paper to the effect that it
25 says here even a minor accident at the DSM site would



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1 lead to a monumental disaster in the Great Lakes.

2 DR. CUMMINS: Oh, yes.

3 MR. VAN VLIET: Do you have any numbers,
4 any quantified data to back up an assumption or
5 statement such as that?

6 DR. CUMMINS: What would you consider
7 quantified data? In other words, what you want is the
8 actual level of containment in each DSM unit or... This
9 would include release of, extensive release, for
10 example, of plutonium into the Great Lakes, and the
11 answer is yes and no. The information made available to
12 me through my recent, my repeated perusals of the
13 information available from Ontario Hydro and AECL, would
14 indicate that there is extensive radioactivity stored
15 and it is dangerous radioactivity in the sense of being
16 radioactive byproducts which are long lifetime and very
17 hazardous to human health.

18 The precise figures as to the extent of
19 how much is in each unit is not made available yet to
20 the public, and one of my purposes here is to encourage
21 a public discussion of this matter. I think it's of
22 grave concern to the public and should be particularly
23 to the Toronto public because you have a huge population
24 which surrounds this cluster of dwarfs and no reasonable
25 person would suggest that this is a safe operation, I



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1 believe, in the sense of offering no danger to the
2 public in Toronto in the event of a mechanical accident.

3 MR. VAN VLIET: The panel is definitely
4 interested in a quantified statement and I wondered if
5 you were able to enlighten the panel on any quantified
6 data that you might have that lead to your statements.

7 DR. CUMMINS: Basically what I am
8 suggesting to the panel is that the information of the
9 precise level of, say, plutonium in the DSM is not
10 available to the public but should be made available to
11 the public. Too, the extent of radioactive containment
12 in each and every modulus is not made available to the
13 public but should be made available to the public. But
14 based on one's knowledge that spent fuel rods are placed
15 in these units and the spent fuel rods may be as young
16 as five years, one can begin to make a reasonable
17 estimate as to the extent of hazard.

18 MR. VAN VLIET: So it is still an
19 assumption on your part as to the amount of radiation
20 that might be released and that might lead to some form
21 of --

22 DR. CUMMINS: The point here that I would
23 like to make is that if the panel is an advocate for
24 AECL, they may request of me this information. But that
25 to me is irrational. The information should be



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1 requested of AECL and the panel should not be operating
2 on behalf of AECL.

3 MR. VAN VLIET: We are not.

4 DR. CUMMINS: I get from the sense of your
5 questions that you are, sir, but...

6 MR. VAN VLIET: We are definitely not.
7 But you make a statement and I wish to know from you if
8 you had data available to the panel --

9 DR. CUMMINS: I would suggest, sir, that
10 the inference is complete and it's more than adequate.
11 Certainly any plutonium released into the Great Lakes
12 would in fact cause impairment, if not loss, of the use
13 for any human purpose, any plutonium.

14 MR. VAN VLIET: Okay.

15 THE CHAIRMAN: Dr. LaPierre.

16 DR. LaPIERRE: My question is you say that
17 the DSM should not be stored close to the Lake. Do you
18 think there is a safe place to store them?

19 DR. CUMMINS: I would say that storage of
20 these units close to the shores of Lake Ontario or close
21 to the shores of Lake Huron is irrational. I would
22 maintain that prior to the placement of such units,
23 environmental assessments should have been undertaken.
24 I am not aware of any efforts to use a rational
25 environmental assessment procedure. I couldn't think of



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1 a worse place to store these than near, very close to
2 the shores of the Great Lakes. Of all possible places,
3 these are the worst.

4 And in terms of placement, there are many
5 less unsafe places in my mind, even on the stations
6 themselves, the nuclear power stations themselves. I
7 mean it's a bizarre -- as I say, it's insane bravado to
8 place the DSMs way off to the corner of Pickering,
9 sitting right on the shores of the Lake, as if they were
10 about to be transported by barge. It makes no sense to
11 me. It seems totally irrational. There are less unsafe
12 places. No safe places.

13 THE CHAIRMAN: Dr. Wilson.

14 DR. WILSON: Just a question. Do you
15 happen to know how long this has been happening? You
16 mention DSMs were introduced into Pickering following a
17 retubing program. What year was that?

18 DR. CUMMINS: I haven't been able to
19 obtain precise history on when these were. The first
20 publications that I am aware of, the first public notice
21 was actually in a professional journal, and that was in
22 '86. So I presume they dated from '85.

23 In this publication, they refer to an
24 earlier retubing operation at Pickering, and in that
25 case they said in 1974 when leaks had developed due to



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1 cracking of overrolled and fitting pressure tube joints,
2 the components from these operations were stored in
3 concrete bunkers in the station basement at Pickering.
4 Later the pieces were pushed out into road flasks and
5 transferred to pools at Chalk River nuclear station.

6 The presumption here is that this
7 publication is dated '86. So, my estimate would be it
8 was '85. My recollection of the retubing operation and
9 some of the history of the retubing operations that I
10 have seen. I am disturbed, however, having lived in
11 Ontario since '72, I have no recollection of any public
12 discussion of the movement of large quantities of high
13 level radioactivity along the highways of Ontario.

14 And it may very well be that we developed
15 an outlook which is so officious that we believe that it
16 is important to relieve the public of their anxieties
17 concerning these matters, that we undertake these things
18 secretly. And I think this whole operation of setting
19 up the DSM has been one which was undertaken with close
20 to dangerous secrecy. There is little public knowledge
21 of them and virtually no public discussion. However, a
22 few, from time to time, these do creep in.

23 DR. WILSON: Just to follow up. I would
24 like to get in the record you spoke about the fears of
25 the public around this. I mean, could you say something



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1 about that.

2 DR. CUMMINS: Well, I could anecdotally in
3 a sense. I spoke a couple of years ago here in London
4 to a group of occupational health workers, occupational
5 health nurses. And I mentioned my concerns about the
6 DSM units at Pickering.

7 And after my talk, I was approached by a
8 group of three occupational health nurses who worked at
9 Pickering, and these ladies told me I was a dreadful
10 liar, I was fabricating the whole story, and no such
11 units existed at Pickering and they would certainly know
12 because they were charged with dealing with any
13 emergency. And that shocked me beyond belief.

14 I recognize that these young women were
15 being fully truthful; they were not trained in dealing
16 with accidents in the DSM units. Indeed, I got the
17 distinct impression that the DSM units were like
18 illegitimate children, they were sort of there but not
19 mentioned.

20 And the sense then that I get would be
21 that some public discussion of this presence in
22 Pickering is warranted, and I could not morally -- I am
23 not morally superior to any other person in Toronto or
24 London, I feel, that I wouldn't give them the respect
25 that is their due in providing them with the



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1 information. And I do not believe that it would provide
2 a normal adult undue concern. But why this management
3 is being undertaken the way it seems to be undertaken at
4 Pickering is beyond me, where even the employees seem
5 not to be fully informed nor adequately trained.

6 My own expectation is that in terms of the
7 next major international nuclear accident, I would say
8 with reasonable security it will be in the Canadian DSM,
9 whether in Pickering, Bruce, or South Korea. That's
10 simply because I have such grave concern about this kind
11 of cheap rinky dink storage.

12 THE CHAIRMAN: No further questions from
13 panel members. Thank you very much. We have noted your
14 point about the locale of the meeting.

15 DR. CUMMINS: Thank you.

16 ---Dr. Cummins withdraws.

17 THE CHAIRMAN: The third participant in
18 our session of this afternoon is Mr. Jeremy Price of the
19 London Environmental Task Force. I would ask him to
20 come forward.

21 PRESENTATION BY MR. PRICE:

22 Mr. Chairman, members of the panel,
23 members of the public. The London Environmental Task
24 Force is a public interest research group here in
25 London. We are a non-profit group and we spend much



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1 time here in the research of matters in the public
2 interest. And I can think of no other matter that is
3 more in the public interest than the concept that the
4 committee is currently confronting.

5 I have a brief. I will not read the text
6 of the brief. I will simply summarize my conclusions,
7 which are that the storage concept is by far and away
8 preferable to the disposal concept. We have to allow
9 for changes in technology, new developments which
10 perhaps may be cost-effective. I don't believe in
11 foreclosing on the nuclear waste problem simply by
12 disposing it without retrievability.

13 Primarily, I have been looking into the
14 issues of cost but I'm thinking cost in both ecological
15 and economic terms; both categories have the same
16 etymological origin, and I believe any discussion and
17 analysis of the concept cannot divorce the requirement
18 of quantifying the ecological cost.

19 And in that respect, I have left with Mr.
20 Greyell a very recent and current update study on trying
21 to come to grips with externalities because one of the
22 things is that at best you are going to have a very
23 difficult time confronting the public with this issue,
24 and I have been following the CBC reports on what
25 happened in Toronto a couple of days ago, but that we



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1 have a responsibility to individuals living in populated
2 areas of the province, Scarborough Bluffs, Port Hope,
3 Elliot Lake, and I would even suggest our colleagues
4 south of the border also; Hanford, Washington, is a
5 problem area.

6 A couple of years ago the Ontario nuclear
7 cost enquiry identified that used fuel channel
8 replacement storage and disposal were by far and away
9 the most uncertain components of the cost of nuclear
10 power. And a couple of the things I have tried to
11 present some ways of looking about going about solving
12 the problem of financing the concept because when you
13 are dealing with uncertainty and then you are dealing
14 with the public purse, you want to basically try to have
15 a sensitive and accurate picture of what kind of outlay
16 is required and therefore I make no bones about it - and
17 I have done so previously - that we should be looking at
18 a backcasting methodology; in other words, we choose
19 some point in the future, we place a limit on the amount
20 of nuclear generation until we have exercised all other
21 supply and demand offers which are available at lower
22 costs, so these are very much economic arguments aside
23 from the ecological arguments.

24 Suggested reading for the panel in the
25 hotel rooms is to pick up the September 1990 copy of



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1 Scientific American. It is completely devoted to energy
2 issues. Extremely valuable piece on energy efficiency
3 and a number of studies have looked at the various
4 alternatives to nuclear and fossil conventional
5 generation, which I think are very promising. And what
6 is required, I think -- again I mention, I think I have
7 looked at some of the barriers in my paper, some of the
8 legislative and regulatory barriers towards getting a
9 fair pricing structure down for looking at the end of
10 cycle costs.

11 I also point out that I think there should
12 be a shift in emphasis in terms of what AECL and Hydro
13 are doing in the nuclear arenas and that is to place
14 much greater emphasis on decommissioning and closure of
15 plants. We certainly are very good at exporting and
16 marketing nuclear technology but we sure as heck haven't
17 demonstrated what we are going to do about the end of
18 the pipe, the end of the pipe aspects of nuclear
19 generation.

20 So if one were to look, for example, there
21 are a couple of conservation supply curves which have
22 been done which would be useful tools for economic
23 analysis by the panel. One is done by EPRI and the
24 report is cited in the briefing. And another more
25 optimistic report recently presented at last year's



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1 world energy congress in Montreal by the Rocky Mountain
2 Institute which suggests, for example, in the area of
3 lighting alone that approximately 30 per cent of 1988
4 U.S. electricity consumption can be derived by lighting
5 measures at a negative cost of approximately minus 2
6 cents a kilowatt hour, so this is not just a free lunch
7 but a lunch that we would be paid to eat.

8 Obviously you can realize how much savings
9 would be generated in terms of reduced capital outlay,
10 number one, for operating costs; number two, for new
11 plants costs in the future; and number three would be
12 other longer term costs associated with nuclear.

13 So that the benefits from efficiency
14 technologies, which are not going to be realized here in
15 Canada until our utilities get off the pot and look at
16 what they have done in the U.S., where they have
17 decoupled profits from sales. They haven't tied
18 generation and output generally which produces negative
19 environmental impacts with profits. What they have done
20 is they have adopted saving/sharing arrangements.

21 Right now we have just signed a
22 Canada/U.S. Acid Rain Accord whereby pollution credits
23 can be traded, and I would suggest that we also need to
24 make markets in efficiency measures in savings to allow
25 stress reduction. I speak in terms of stress reduction



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1 and uncertainty in my paper, stress from the point of
2 view of economic stress, in terms of lowering interest
3 costs on the current data, in terms of lowering
4 eco-stress which is a correlative and is an inseparable
5 stress from the economic stress. I think any economic
6 solutions are also necessarily going to be ecological
7 solutions as well.

8 So, I really don't have too much else to
9 say except that I think there are some opportunities
10 here. But we have to be honest. I think there has to
11 be a lot more openness with the public. And I think the
12 only way that acceptance and general stability is going
13 to carry on here is again if we specify an end point
14 looking at the backcasting methodology that was adopted
15 by Lovins and another chap by the name of Lund in the
16 U.S. In other words, we have got to re-orient our
17 approach to looking at things.

18 Reducing uncertainty forecasting which is
19 so a very common tool is inherently based on
20 uncertainty. We don't know, you know, what inflation is
21 going to be, what GNP is going to be. But backcasting,
22 we say, 'Okay, well, what if we said we want things to
23 be this way at a specific time' and then we move
24 backwards and we say, 'Okay, now at what rate of
25 implementation do we need to introduce, say, alternative



1 and efficiency sources? And what are the economic
2 benefits? How many dollars would accrue from that.'

3 And there I think is a pathway to a
4 sustainable world because I think the legacies for our
5 future generations... I've spent a lot of time looking
6 at this issue and we definitely need to come up with a
7 safe storage, long-term storage option, and, you know, I
8 think we also have responsibility to other nations with
9 whom we have exported CANDU technology, who may not be
10 as adequately technologically prepared to cope.

11 I am sure there are a lot of nightmares
12 and horror stories that none of us have heard about but
13 that nonetheless do exist, and there again I think that
14 should be a very explicit and specified emphasis on the
15 part of AECL. And Hydro is not in the marketing of more
16 generation but in the marketing of closure and
17 decommissioning solutions.

18 And where we are going to get that money,
19 I think, is going to come out of the benefits that we
20 realize through optimalization of efficiency measures
21 which are going to necessarily require revisions to the
22 Power Corporations Act. They are going to also -- I
23 think we are going to also have to look at some of the
24 U.S. utilities' experiences and experiences in other
25 nations who are so far ahead of Canada in reducing



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1 energy consumption per capita. As we know, we have a
2 very unenviable reputation here as being the world's
3 largest per capita energy consumer society -- climate
4 notwithstanding. I will allow that argument to creep
5 in.

6 But that's about it. If there are any
7 questions or comments...

8 THE CHAIRMAN: Yes. Some of my fellow
9 panelists will want questions. You mentioned that you
10 had left a paper with Mr. Greyell?

11 MR. PRICE: I left five copies. I didn't
12 produce that.

13 THE CHAIRMAN: Fine. I will just ask him
14 now if he will make sure that copies are made available
15 to each of the panel members and any others who will be
16 interested to get it. The other references - you made
17 reference to other publications - I gather they can be
18 found in the paper which you submitted to us?

19 MR. PRICE: That is correct. And there is
20 a very excellent publication that is now available a
21 study, a very intensive study commissioned for the U.S.
22 Department of Energy, well researched, well documented,
23 which attempts to quantify the externalities that are
24 part of the problem of sustainable development and some
25 of the work that is being done through the national



1 roundtables looking at the energy indicators, trying to
2 come up with economic measures, to have full cost
3 accounting of environmental impacts related to different
4 economic activities.

5 There is also, I think, one of the areas
6 in solutions that we should be implementing is the use
7 of computer networking using modems, networking with
8 other organizations in the United States and abroad,
9 where we can bridge that space/time gap. One of the big
10 problems with decision-making is the time required to
11 produce that information or as much independent source
12 corroboration with numbers. I mean reliability is very
13 important.

14 It's a very cost effective way of
15 gathering information aside from going about from city
16 to city in Ontario; that theoretically out of one
17 office, one could pull in the latest reports from
18 different organizations, utilities, which would assist
19 in the development.

20 And what I called for was the development
21 of a spreadsheet, a multi-dimensional spreadsheet which
22 looks at costs, and I would suggest probably a time run
23 of fifty years. Right now I think Ontario Hydro uses
24 forty years for nuclear options, for discounting policy,
25 but we should be looking at a longer discount period



1 because I think that way will be more realistic in our
2 assessment of all the costs as if we take a look at a
3 longer term time horizon.

4 And also, you know, with the potential. I
5 mean if new technologies are introduced, that will drive
6 down the costs, so that this particular data base
7 spreadsheet would be modifiable depending on changes to
8 what is the best available technology on the planet. I
9 don't think we can afford to skimp, especially with
10 these tasks. We should not spare any expense to ensure
11 the safety of residents of Canada.

12 THE CHAIRMAN: Thank you.

13 Mr. van Vliet, I think you have a
14 question.

15 MR. VAN VLIET: Mr. Price, you have
16 indicated the possibility perhaps of phasing out
17 nuclear.

18 MR. PRICE: Yes.

19 MR. VAN VLIET: Do you have information
20 with respect to conservation measures that can be
21 introduced in Canada that would lead to less nuclear
22 being used to the point where it can be phased out? If
23 one takes into consideration, for instance, that in
24 Ontario somewhere around 50 per cent dependent on
25 nuclear power generation. Is it possible in your view



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1 to do that?

2 MR. PRICE: At present with the technology
3 it is, yes, but I think the barrier right now is by far
4 and away is regulatory and legislative. If, for
5 example, let's take a look at amortization period of
6 conservation options. Now I will grant that certain
7 conservation measures such as efficient lighting have a
8 useful life span of three years, then you've got to
9 replace the bulb.

10 But the longer term areas, the best areas
11 where we can realize gains today would be in the area of
12 motors, for the industrial sector variable speed drive
13 and adjustable speed drive motors. That is a very large
14 area of savings.

15 The other very large area of savings is in
16 intelligent lighting systems for both the commercial and
17 residential sector; in particular, the compact
18 fluorescent bulb which operates at about a quarter of
19 the conventional wattage.

20 For example, at the University of Western
21 Ontario, they are spending \$3.5-million a year on
22 electricity costs which are going up 15 per cent next
23 year. Lighting at the university is about 45 per cent
24 of total electrical consumption. So one can just
25 imagine the dollar savings were they to retrofit the



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1 entire university. And this has been done, by the way,
2 at the University of Rhode Island, where they have saved
3 approximately 75-per cent on their lighting costs or I
4 think it was about 30 per cent on their total
5 electricity bill.

6 I mean, these technologies are promising
7 whose implementation does not, I think, require the
8 assistance of legislative changes. But where
9 legislative change is required is in the costing rules
10 for nuclear. It is allowed a 40-year depreciation
11 period, whereas the financing programs, the incentive
12 programs that Ontario Hydro offer, I believe, for
13 lighting, it's like a five-year -- the efficiency
14 programs are given a five-year amortization period, so
15 there is an 8:1 advantage right there in terms of time
16 to repay for the measure.

17 There is still this area which the federal
18 government is looking at which is the environmental or
19 full cost accounting methodology in sustainable
20 development. I have some estimates here from the study
21 which looks at the environmental cost. This was a U.S.
22 study performed report actually for the New York State
23 Energy Research and Development Authority.

24 I don't have the information on how they
25 derived these units, but they listed an environmental



1 cost for nuclear of 2.9 cents per kilowatt hour, so I
2 would just say that we are going to -- for the bigger
3 changes that are going to be required to allow
4 efficiency in non-utility generation options to compete
5 fairly in terms of supply and demand management, that
6 they are going to have to be looked at I think on an
7 accounting unit energy costing basis as opposed to the
8 levelized unit energy costing basis that is currently
9 accepted by many other nations in terms of costing the
10 nuclear option.

11 Most of them use the LUEC methodology
12 which is based on forecasting; and again I am trying to
13 move away from that and integrate ecology and economics
14 through a backcasting methodology. And I think there is
15 some very exciting opportunities in the public policy
16 sector to define what those goals and objectives can be
17 or should be.

18 I think that might also tend to engender
19 public participation because it's a positive process as
20 opposed to one which is highly charged like this one.
21 When one mention the words "nuclear waste", it's
22 obviously going to get people upset. But, at the same
23 time, I think that's where we are going to get ourselves
24 out of this mess is through the accelerated
25 implementation of conservation efficiency options.



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1 MR. VAN VLIET: I have a supplementary
2 question. Who do you see paying for the conservation
3 measures that you so eloquently describe? Do you see
4 that the cost of replacement of these electric motors,
5 the cost of replacement of the lighting systems, do you
6 see them being borne by the public with a reasonable
7 pay-out period or do you see that being supported by,
8 say, the power utilities?

9 MR. PRICE: I think the experience is
10 varied and it very much depends on a number of factors.
11 Usually in the United States, for example, some
12 utilities give away these measures for free because they
13 have adopted an ethic which is customer service. They
14 are driven to serve customers rather than -- you know,
15 that that's more important than their bottom line.

16 Now, as I said earlier, I think that the
17 correct economic solutions also happen to be the correct
18 ecological solutions. And there when one is talking
19 about equity in cost sharing in terms of who is going to
20 pay for things, I think you have to really look at what
21 we have got today, point one, which is a nuclear
22 industry which is somewhat subsidized by government
23 support but it is also reflected in the rates that
24 consumers pay and that the ratepayer structure right now
25 is disadvantageous to sustainable development because it



1 is an inverted marginal cost structure.

2 In other words, there is all this talk
3 about paper services and banks: if you use the service,
4 you pay for it. It should be the same thing for any
5 commodity which has negative environmental effects; in
6 other words, if you use more you pay more.

7 There will be some argument there that
8 that will increase operating costs or product costs, but
9 I would argue that we can improve our balance of
10 payments' position quite substantially by making the
11 necessary capital investments now in these measures;
12 that because Canada, as I mention, is the most wasteful
13 nation on a per capita basis, we also have the greatest
14 opportunity to improve our competitiveness and that in
15 fact this is the hidden dividend, so to speak, and that
16 the multiplier effects as well from financing these
17 infrastructures are far greater multipliers than those
18 achieved in the nuclear industry -- for nuclear
19 infrastructure, I should say.

20 THE CHAIRMAN: Thank you very much for
21 your well-informed opinion. Other comments or questions
22 from other members of the panel? If not, I thank you
23 very much. And, in addition, to what you have
24 presented, some of the reference to some interesting
25 articles, which I am sure a number of us will want to



1 -pursue... Thank you very much indeed.

2 ---Mr. Price withdraws.

3 THE CHAIRMAN: May I ask at this stage
4 whether there are other members present, other people
5 present who would like to make a presentation to the
6 panel while we are here. These are the only three whom
7 we had inscribed beforehand but we are certainly
8 available to hear other observations if you would like
9 to make them.

10 If there are not, I would like to thank
11 those who have made the presentations to us for the time
12 they have taken to be with us this afternoon and
13 certainly the thought gone into their presentations
14 initially, and to thank those members of the public who
15 have come out as well.

16 It is very important to us to have the
17 opportunity to hear from a wide variety of people within
18 Canada, what their views are with respect to the task
19 with which we are charged, and we will find that, I
20 know, very valuable as we put together the next stage of
21 our work after the completion of these hearings to have
22 listened to you carefully during the time we have been
23 on the road in a number of centres in a number of
24 provinces in the country.

25 Thank you very much for coming. There is



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1 a cup of coffee there should anyone want to take it and
2 continue informal conversation as well as these more
3 formal proceedings.. Thank you very much.

4 ---Whereupon the hearing was adjourned at 3:07 p.m.

5
6 I certify the foregoing as a true and
7 accurate computerized transcription of
8 the proceedings, to the best of my skill
9 and ability.

10 

11 Karen Maxwell,
12 Court Reporter.
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FEDERAL ENVIRONMENTAL
ASSESSMENT REVIEW
OFFICE

BUREAU FEDERAL
D'EXAMEN DES EVALUATIONS
ENVIRONNEMENTALES

Held at: Red Oak Inn
Thunder Bay
Ontario

Date: Monday, October 29, 1990

SCOPING MEETING

B E F O R E :

MR. BLAIR SEABORN	Chairman
DR. LOIS WILSON	Member
DR. LIONEL REESE	Member
MR. PETER van VLIET	Member

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2
3 HEARING BY THE FEDERAL ENVIRONMENTAL ASSESSMENT
4 REVIEW OFFICE ON NUCLEAR FUEL WASTE MANAGEMENT.
5
6

7 SCOPING MEETING
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9

10 Hearing held at the Red Oak Inn, Thunder
11 Bay, Ontario, on Monday, October 29, 1990,
12 commencing at 2:00 p.m.
13
14

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16 VOLUME 5
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21 B E F O R E :

22 MR. BLAIR SEABORN

Chairman

23 DR. LOIS WILSON

Member

24 DR. LIONEL REESE

Member

25 MR. PETER van VLIET

Member



(i)

A P P E A R A N C E S

MS. ROSEMARY COX	Constituency Assistant To MP Ian Angus
MR. MIKE BRYAN	Environment North
MR. CHARLES FAUST MS. BONNIE SATTEN	Golden/Red Lake Environment Group
MR. TOM MIYATA	Private Citizen
MS. OLGA GERNAT	Private Citizen
MR. JOHN PRINGLE MS. MARGARET WANLIN MR. JOHN STRADIOTTO	Atikokan Citizens For Nuclear Responsibility
MR. DICK HINER	Private Citizen
MR. GLEN NOLAN	Atikokan Native Friendship Centre, Seine River Band/Lac Lacroix Band
MR. MOE SHEPPARD	Private Citizen
MS. NANCY QUENNELL	Private Citizen
MR. BRUCE HYER	Private Citizen
MR. JOHN GIBB	Private Citizen
MS. CLARA KASSTAN	Private Citizen



(ii)

I N D E X o f P R O C E E D I N G S

Presentation by:

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Ms. Clara Kasstan

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1 ---Upon commencing at 2:00 p.m.

2 THE CHAIRMAN: Good afternoon, ladies and
3 gentlemen. I'm wondering if you could take your seats,
4 come a little closer to the preacher if you'd like to
5 and we can start our session for this afternoon.

6 I would like to welcome you to this
7 scoping meeting being held in Thunder Bay by the
8 Environmental Assessment Panel which has been asked to
9 review the Nuclear Fuel Waste Management and Disposal
10 Concept. A panel appointed by the Minister of the
11 Environment in October of 1989.

12 Unfortunately, due to some illnesses, I do
13 not have the full membership of our panel here today,
14 but let me introduce the two people that you see on my
15 right and left. On my right is Dr. Lois Wilson, who is
16 the President of the World Council of Churches,
17 Co-Director of the Ecumenical Forum of Canada in
18 Toronto, and on my immediate left, Dr. Lionel Reese, a
19 physician at St. Joseph's Hospital in London, Ontario, a
20 professor in the Department of Diagnostic Radiology and
21 Nuclear Medicine at the University of Western Ontario in
22 that city.

23 I expect we will soon, very soon, be
24 joined, unless his aircraft is late, by Mr. Pieter Van
25 Vliet, a mechanical engineer living in Regina who is



1 also a member of the Senate of the University of Regina.

2 My name is Blair Seaborn, I'm Chairman of
3 the Panel, I reside in Ottawa. I'm retired, but I
4 served previously as the Deputy Minister of the
5 Environment and Canadian Chairman of the International
6 Joint Commission.

7 I would also like to introduce the Panel's
8 Secretariat members who are here, Mr. Bob Greyell, the
9 Executive Secretary, who is at the table this corner of
10 the room, and at the back of the hall, Ms. Susan Toller,
11 an Environment Analyst who is helping the Panel, and who
12 will be available to give any assistance you require.
13 Both Ms. Toller and Bob Greyell will be there to help
14 you.

15 The review is being conducted in
16 accordance with the Federal Environmental Assessment and
17 Review Process (EARP). The process ensures that the
18 environmental implications of proposals for which the
19 federal government has decision-making authority are
20 fully considered as early as possible in the planning
21 process, and certainly before irrevocable decisions are
22 taken. I hope that some of you that are here today may
23 have had the opportunity to receive information on the
24 review process and the proposal of Atomic Energy of
25 Canada Ltd. at the open houses which were held in May



1 and June of this year.

2 The Panel has been asked, in part, to
3 examine the nuclear fuel waste management and disposal
4 concept, which is a proposal for permanent disposal of
5 used nuclear fuel deep in the granitic rock of the
6 Canadian Shield. This proposal would see the used fuel
7 sealed inside corrosion-resistant containers and placed
8 in holes drilled in the floor of a room inside a
9 disposal vault. The vault would in some ways resemble a
10 deep mine and would contain the used fuel in an area of
11 approximately four square kilometers.

12 I'd like to say a few words about the
13 Panel's mandate. The terms of reference state that the
14 Panel is to review the safety and acceptability of the
15 concept for geological disposal of fuel waste, as
16 proposed by Atomic Energy of Canada, that which I've
17 just briefly described. In addition to the AECL
18 proposal, we shall examine a broad range of nuclear fuel
19 waste management issues, including long-term management,
20 transport, and environmental, social and economic
21 effects. We shall look at approaches for nuclear fuel
22 waste disposal being developed elsewhere in the world.
23 Since site selection will not occur until a disposal
24 concept has been accepted as safe, the Panel will not
25 consider any specific sites, but will review the



1 potential availability of sites and the methodology and
2 criteria required for site selection.

3 I'd like to say a few words also about
4 what is not in the Panel's mandate, and therefore will
5 not be addressed in this review. The energy policies of
6 Canada and its provinces; the role of nuclear energy
7 within these policies, including the construction,
8 operation and safety of new or existing nuclear power
9 plants; fuel reprocessing as an energy policy; and the
10 military applications of nuclear technology. All of
11 these lie outside of our terms of reference.

12 Let me be clear, however, that the Panel
13 is very much aware of the broader concerns related to
14 the use of nuclear materials and the use of nuclear
15 power for the generation of electricity.

16 The Panel has been urging a broader review
17 of the comparative environmental implications of the
18 various methods of generating electricity. I understand
19 that steps have now been taken to get such a review
20 underway, I hope in the fairly near future.

21 The purpose of these scoping meetings is
22 to allow participants to identify issues that need to be
23 addressed in the environmental impact statement that
24 will be prepared by AECL. The Panel is not requesting
25 the presentation of opinions on the substance of the



1 disposal concept at this time. Public hearings will be
2 held later to discuss whether AECL's proposal is
3 acceptable. The scoping meetings enable participants to
4 assist the Panel in identifying the issues that are of
5 concern and questions which need to be answered.

6 Following these meetings the Panel will
7 prepare draft guidelines for the preparation of the
8 environmental impact statement. We will invite public
9 comments on these draft guidelines over a period of at
10 least 30 days. After consideration of these comments,
11 the Panel will put the guidelines into final form and
12 issue them to AECL. When AECL has completed the
13 environmental impact statement, a process, I should add,
14 which could take from a year to a year and a half,
15 because it will be a very -- one hopes a very
16 comprehensive document. Once they have completed it and
17 have submitted it to this Panel, the document will be
18 available for at least 90 days for public review.

19 To assist in the evaluation of the
20 scientific and technical matters, a Scientific Review
21 Group of distinguished independent experts has been
22 established by the Panel to examine the safety and
23 scientific acceptability of AECL's disposal concept. A
24 report of their findings and recommendations will be
25 submitted to the Panel, who will distribute it to the



1 public.

2 Once the Panel is satisfied that AECL has
3 addressed satisfactorily all the items identified in the
4 guidelines, we will hold public hearings. Participants
5 will be asked to discuss the acceptability or otherwise
6 of AECL's disposal concept in detail at this stage of
7 the review. The Panel will consider all comments
8 submitted to it and will prepare its report to the
9 Ministers of Environment and of Energy, Mines and
10 Resources.

11 The present scoping meetings will be
12 conducted according to the meeting procedures published
13 on August the 24th of this year. The Panel would
14 appreciate it if review participants would restrict
15 themselves to the identification of issues within the
16 Panel's mandate. I would ask that those who have
17 registered to speak attempt to summarize their concerns
18 in 15 minutes, unless they have previously requested an
19 additional 10. The Panel will pay equal attention to
20 written and to oral statements.

21 Participants who have registered in
22 advance will be asked to present their views to the
23 Panel and the Panel, in turn, may ask questions of
24 clarification following each presentation. Anyone who
25 would like to



1 make a presentation to the Panel, but has not yet
2 registered, may speak to either of member of the Panel's
3 Secretariat, Mr. Greyell or Ms. Toller, now or at the
4 coffee break, and then get your name on the list so that
5 we'll have a chance to hear you. We'll do our best to
6 accommodate those who have not registered, but if there
7 are large numbers pre-registered, that will depend to
8 some extent on the time remaining at each session.

9 Court reporters are here to record the
10 proceedings of each meeting. Transcripts will be made
11 available to designated libraries. A compilation of
12 written submissions will also be available from the
13 Federal Environmental Assessment Review Office in
14 Ottawa.

15 Moreover, we will accept written
16 submissions identifying issues and concerns any time up
17 to and including November 30th, 1990.

18 With this, by way of introduction, I
19 would ask that we hear from the first participant this
20 afternoon. It will be Ms. Rosemary Cox, the
21 Constituency Assistant to your MP, Mr. Ian Angus, who
22 had hoped very much to be here to present his views
23 personally, but was required to be in Ottawa for House
24 of Commons business and therefore has asked Ms. Cox to
25 make the presentation on his behalf.



1 We will be very pleased to hear from her.
2 I wonder if you would just take a seat up here. It
3 looks a little forbidding, though the distance is not
4 that great. I'm sorry it's that far away, but perhaps
5 you could make the presentation then both we and the
6 members of the public can hear what you have to say and
7 see you, and then, if need be, we'll ask you questions
8 afterwards. Ms. Cox.

9 PRESENTATION BY MS. COX:

10 First I'd like to reiterate what the Chair
11 has said. Ian would have liked to be here in person,
12 unfortunately he's called away. He's asked me to read
13 this presentation for him.

14 First let me welcome you and your Panel to
15 Thunder Bay and Northwestern Ontario. It is with regret
16 that I do so by letter rather than in person as I
17 originally intended, however, a last minute change in
18 the legislative timetable in the House of Commons forced
19 me to be in Ottawa today.

20 In this presentation I am tempted, as I am
21 sure others will be today, to deal not with the task at
22 hand but the broader issues associated with nuclear
23 waste storage. It is clear to all who know me that I
24 have been and continue to be opposed to the storage of
25 any waste, low or high level nuclear waste or garbage of



1 other kinds, in areas that do not receive the benefit of
2 those energies or services or consumption that creates
3 such waste. Those who use it should be responsible for
4 the waste as well.

5 However, the purpose of the scoping
6 meetings is to identify issues that should be included
7 in the guidelines for the preparation of an
8 Environmental Impact Statement.

9 Let me present to you those issues that I
10 believe must be part of an EIS. But before I outline
11 them, I want to say that my definition of environment is
12 one that goes beyond the purely scientific, but reaches
13 into the social and political fields as well.

14 Ian's first issue is community veto. No
15 community should be forced to accept any kind of nuclear
16 waste storage or containment facility in or near its
17 borders without widespread public approval. No
18 community should be forced to have nuclear waste
19 transported through or near its borders without
20 widespread public approval.

21 His recommendations follows. It is
22 recommended that the EIS require AECL to identify
23 mechanisms for informing and seeking formal endorsement
24 of any plan to transport or store nuclear waste in or
25 near a community. Any mechanism proposed must go beyond



1 the traditional resolution by the local municipal
2 council to include some form of formal referendum,

3 His second issue is transportation of
4 waste. A key concern for residents of Northwestern
5 Ontario has long been the safety of our highways.
6 Already many of our citizens are killed each year in
7 head on collisions on the Trans Canada Highway. There
8 is growing concern about the increased reliance on
9 highway trucking for the transportation of hazardous
10 waste. Adding nuclear waste to the mix, quite frankly
11 scares the hell out of us.

12 It is recommended that the EIS require
13 AECL to provide detailed and specific independent
14 research into the safety of transporting nuclear waste
15 over long distances on public highways.

16 It is also recommended that the EIS also
17 initiate its own research into the safety and security
18 of transporting nuclear waste over long distances on
19 public highways.

20 The above research should be conducted on
21 the basis of the terrain and conditions on highways 11
22 and 17, particularly through the rock cut and cliff
23 areas of the North Shore of Lake Superior, not the super
24 highways of Toronto. It should also examine the
25 increase in risk as distance of haulage increases.



1 The third issue is the existing temporary
2 storage. There are a number of us who believe that what
3 has worked since the first waste bundle came out of a
4 reactor should continue to be used for the storage of
5 high level nuclear waste. In particular the
6 continuation of this approach will eliminate any
7 transportation of nuclear waste, and those individuals
8 and communities that currently benefit from the
9 operation of a nuclear plant and the energy generated
10 from it will have full responsibility from start to
11 finish.

12 The recommendation is, that it is
13 recommended that the EIS require AECL to analyze the
14 appropriateness of continuing to use the 'swimming pool'
15 concept as the only means of storing high level nuclear
16 waste.

17 There are, of course, many more elements
18 that need to be included in an EIS, however, I will
19 leave those to others who are here today.

20 As I reviewed a list of those scheduled to
21 appear before the Panel today, one thought came to
22 mind... these hearings should been held in Atikokan...
23 not just because a large number of the presenters are
24 based there, but because Atikokan has been the site of
25 AECL test drilling and the related controversy for over



1 10 years.

2 Ian would like to thank you very much for
3 the opportunity to make the presentation and he wishes
4 you the best of luck in your deliberations. Thank you.

5 THE CHAIRMAN: Thank you, Ms. Cox, and I
6 hope you will convey our thanks to your Member as well
7 for taking the trouble to put down his views in a very
8 succinct and I think direct way, if I may say so, and
9 that is always helpful to us.

10 Are there any points of clarification
11 which you would like to ask? Dr. Wilson.

12 DR. WILSON: First of all, I'm delighted
13 that your Member of Parliament has included not only the
14 scientific but the social and political implications and
15 is speaking to them.

16 Under the community veto, he has suggested
17 widespread public approval. Now I guess he's really
18 raising the question of what widespread means. In his
19 view it obviously goes beyond the formal resolution of a
20 local municipal council, but is there anything you could
21 add there? I mean he's suggesting that AECL identify
22 mechanisms for that, or if they're not able to, to get
23 somebody to do that...

24 MS. COX: Yes. He is looking at a very
25 definite formal referendum where people are asked, do



1 you or do you not want storage of this or transportation
2 of this material in your region.

3 DR. WILSON: So it's the referendum option
4 he's pressing there?

5 MS. COX: Definitely. Yes.

6 DR. WILSON: The other comment is on page
7 2 under existing temporary storage. He said, you know,
8 analyze the appropriateness of continuing the present
9 method, the 'swimming pool' concept. Now he's got the
10 only means of storage. Does that mean he's already
11 ruled out other options?

12 MS. COX: I believe the impetus of this
13 statement was to reduce any sort of transportation of
14 nuclear waste. I think the benefit that he sees in the
15 present system is that fact that no nuclear wastes are
16 transported over long distances. I don't believe that
17 he would shut the door to any other feasible methods,
18 but transportation particularly concerns him, and I
19 believe that any option that minimizes the risks by
20 minimizing transportation would be looked on favourably
21 by Mr. Angus.

22 DR. WILSON: Okay, that's helpful. Thank
23 you.

24 THE CHAIRMAN: We thank you then, Ms. Cox.
25 I think that's very clear with the additional



1 information which Dr. Wilson has elicited.

2 MS. COX: Thank you.

3 THE CHAIRMAN: I think that's very fine.
4 Thank you.

5 ---Ms. Cox withdraws

6 THE CHAIRMAN: The next we'll hear from
7 are Mike Bryan and Marie Nelson. I believe they are
8 both here today to present the views of Environment
9 North.

10 If they could come to the table here to our
11 right, so that we can all see them as well as hear them.
12 I'm saying they, but it seems to be singular. Mr. Mike
13 Bryan then.

14 PRESENTATION BY MR. BRYAN:

15 Mr. Chairman and members of the Panel and
16 members of the audience, I would like to welcome you to
17 Thunder Bay and wish you good success here.

18 To begin the presentation I'd like to deal
19 very briefly with the public input which Environment
20 North has received over the last month. We received
21 that input through a questionnaire and a public meeting
22 and a television phone-in show.

23 The people we heard from were
24 overwhelmingly opposed to having a waste repository
25 anywhere in this area. I don't think that's very



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1 surprising. What may be more surprising is that most of
2 them were also opposed to having it anywhere. Not in my
3 backyard, not in anyone's backyard is a phrase that came
4 up more than once.

5 The reasons for opposing a repository were
6 varied, but safety was certainly the number one concern.
7 After Chernobyl and the Challenger disaster, people
8 seemed to be unwilling to accept the reassurances
9 offered by scientists and engineers.

10 The recommendations we present today
11 basically come from the concerns that we got from the
12 people we were talking to.

13 I think what may be missing in our
14 presentation though, is some of the emotion which was
15 very evident around this topic. I think that emotion is
16 something that has to be dealt with, and that the Panel
17 should keep in mind throughout this process.

18 Starting with the recommendations, we'd
19 like to look first at the assessment process itself.
20 I'm delighted to be able to dispense with the first
21 recommendation, which was basically that the Panel
22 should convey to the Minister of Environment the need
23 for a broader debate around energy issues, and I'm very
24 pleased to hear that such a debate may be getting
25 underway.



1 Our second recommendation also deals with
2 the terms of reference of the Panel. The Panel was
3 basically given two jobs; to review the safety of AECL's
4 disposal concept and also to review its acceptability.
5 We've been struck so far by the difference in the way
6 the two tasks have been handled. While a great deal of
7 energy is being devoted to the scientific aspects of the
8 proposal, accessibility is not, at least to our
9 knowledge, being examined in any rigorous way.

10 There are a number of questions that we
11 think merit consideration. What exactly is meant which
12 the term "acceptability?" Are we talking economic
13 acceptability?... public acceptability?... moral
14 acceptability? Who is it that must find the proposal
15 acceptable? Is it the Canadian public?... the citizens
16 of Northern Ontario, who are very likely to play host to
17 the repository if it is built?... or perhaps simply the
18 Panel itself. Can acceptability be measured, or should
19 it be measured?

20 We're rather concerned that if these
21 questions are not answered there exists a real danger
22 that half of the Panel's mandate will never be properly
23 addressed, and therefore our second recommendation is
24 the Panel should consider how best to carry out that
25 part of its mandate relating to the acceptability of



1 AECL's proposal, and should also make public its
2 conclusions in that area.

3 Our third recommendation also deals with
4 public acceptability. I'm sure the Panelists must, at
5 times, have mixed feelings about the participation of
6 the public in these hearings. There may be occasions as
7 you listen to an argument repeated for the third or
8 fourth time when you feel that this part of the process
9 is not particularly productive.

10 I think it's important to keep in mind,
11 though, the virtues of public participation. I think
12 public input is invaluable when considering social and
13 ethical issues which often underline policy, and those
14 issues are rarely dealt with in expert testimony. It is
15 one important way of getting a measure of the
16 acceptability of a proposal.

17 For the participants who come to these
18 hearings, they offer a chance to influence policy on an
19 issue they feel very strongly about. This is specially
20 important for people living in towns like Red Rock and
21 Atikokan, which may end up as the host community for a
22 repository if it is built.

23 This assessment may be the only
24 opportunity for them to ask questions and get their
25 concerns onto the agenda in a meaningful way.



1 One other function of the public
2 participation in these hearings is to help legitimize
3 the assessment procedure, to place a stamp of democracy,
4 if you will, on a process which is not necessarily all
5 that democratic.

6 The legitimizing function should be
7 particularly important for this Panel starting off as it
8 does, with a mandate which has been widely criticized,
9 and a subject matter which is very controversial.

10 I think public participation is very
11 important, but our impression to this point is that it
12 hasn't been treated that way.

13 We have a number of concerns. We're
14 concerned that there were only two weeks from the time
15 community groups were given their funding until the
16 deadline for registering to appear at these hearings.
17 How could we get the public involved in that length of
18 time?

19 We're concerned that people were
20 originally allowed just 15 minutes to speak at the
21 hearings, although entire sessions were cancelled
22 because of a lack of presenters.

23 We're concerned that half the requests for
24 intervenor funding were rejected and most of the other
25 requests were only partially met, even though a quarter



1 of the funds set aside for intervenors were not spent.

2 No doubt there were reasons for making
3 these decisions, and perhaps they were very good
4 reasons, but the impression that has been left is that
5 public participation has been little more of than pro
6 forma exercise.

7 Our third recommendation, therefore, is
8 first of all that public participation in the assessment
9 process should receive a higher priority. Recognition
10 should be given to the complex nature of the issues and
11 the limited resources available to most individuals and
12 groups. Sufficient time - and this is a key point -
13 sufficient time should be allowed at each stage of the
14 process for the public to become acquainted with the
15 issues, and a special effort should be made to hear from
16 individuals as well as from public interest groups.

17 The second part of this recommendation is
18 that the monies originally designated for intervenor
19 funding during the scoping sessions, but not
20 distributed, should be added to the intervenor funding
21 set aside for the second stage of hearings.

22 My fourth recommendation also has to do
23 with public trust. That seems to be coming up a great
24 deal. In this case we're talking about public trust, or
25 distrust, of AECL.



1 AECL is widely viewed as being in a
2 conflict of interest concerning nuclear waste disposal.
3 As a seller of nuclear reactors, it has an obvious
4 vested interest in seeing the public reassured about the
5 feasibility of fuel waste disposal. There is some
6 public concern that this commercial interest might
7 influence the direction, the timing and thoroughness of
8 the research being carried out.

9 The efforts which have been instituted
10 towards outside review are very laudable, but I think
11 they're insufficient to reassure the public that the fox
12 is not, in fact, in charge of the hen house.

13 A related concern centres on AECL's public
14 relations efforts. The company has a very active
15 department that attempts to influence opinion on nuclear
16 issues, including the question of nuclear waste
17 disposal. This is a perfectly legitimate activity for a
18 commercial enterprise.

19 We feel that it is totally inappropriate
20 for an agency which is charged by the government with
21 carrying out the basic scientific research on a
22 controversial issue of public policy.

23 Our fourth recommendation, therefore, is
24 that the Panel should consider if AECL is the
25 appropriate agency to carry out future research in this



1 area on nuclear fuel.

2 Our fifth recommendation concerns the
3 disclosure of information. We have heard that AECL may
4 be reluctant to submit certain elements of its computer
5 modelling software to an independent review on the
6 grounds that this information is of a proprietary or a
7 commercial nature.

8 We view the computer software as being of
9 critical importance to this assessment since it is the
10 principle means of predicting radiation exposures.
11 Almost as important, full disclosure of information is a
12 prerequisite for public trust in this whole procedure.

13 We cannot, and we should not, expect
14 people to take AECL's word on the quality of this
15 software or on any other matter. The whole point of a
16 scientific assessment is to do a double check on AECL's
17 work.

18 Recommendation number five is that the
19 Panel should ensure that all information relevant to the
20 proposal is made available for review. We feel the
21 requirements of scientific evaluation and public
22 disclosure should take precedence over any other
23 considerations.

24 I'd like now to move on to the
25 Environmental Impact Statement itself. Northern Ontario



1 has had more than its share of run-ins with AECL. In
2 Massey and Madoc and Atikokan, AECL has acquired an
3 unenviable reputation. Now the point here isn't whether
4 or not AECL deserves this, it's that this public
5 mistrust, and the reasons for it, must be considered
6 when designing a siting process.

7 Back in the early 1980's, Atikokan was the
8 location of an AECL research program. Much of the
9 conflict in Atikokan was due to the uncertainty about
10 the company's intentions. Was AECL really there only to
11 drill a few holes in the ground and then leave, or was
12 this the start of something much bigger? This
13 uncertainty was made worse by the continually changing
14 public pronouncements concerning the rights of the
15 community to reject drilling and or a repository. Both
16 the federal and the provincial governments appear to
17 have vacillated on this issue, and their constantly
18 changing ground rules made many residents feel that they
19 were being manipulated and victimized.

20 The recent experience with siting a low
21 level repository has been somewhat happier. I think
22 partly because lessons have been learned from what
23 happened in Atikokan. The documents that have been
24 distributed to the potential host communities are now
25 quite precise and quite detailed in describing how the



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1 process will work. People can see what they are getting
2 into, and much of the uncertainty is thus removed.

3 We would like AECL's proposal for a site
4 selection process to be similarly detailed and precise.
5 A plan which does not meet this standard will be viewed
6 as being open to abuse and manipulation.

7 Recommendation number six is that in
8 describing its plans for site selection, AECL should
9 present a clear and precise outline of what is intended.
10 The use of vague and undefined terms should be avoided.
11 The site selection proposal should deal with such issues
12 as the criteria to be used in defining an acceptable
13 site, the right of a community to reject a repository,
14 the definition of a host community, the method of
15 evaluating community wishes, public access to
16 information, the funding of locally based public
17 interest groups, the provisions of public hearings, the
18 regulatory and assessment mechanisms that would have to
19 be satisfied, the choice of an agency to carry out the
20 site selection process, and a timetable for that
21 process.

22 An essential part of the siting involves
23 selling the project to a host community. Part of the
24 bait which will be used is the promise of 600 jobs, and
25 that's quite a carrot to dangle in front of people in a



1 place like Atikokan, which saw its two mines shut down a
2 decade ago, and now is watching its forest products
3 plants close. Six hundred jobs means stability. The
4 question, is for how long?

5 AECL is anticipating a 45 or 40 year
6 period of operation for the repository, and a total life
7 span of perhaps 60 years. What happens then? Will the
8 community be back where it started, a one industry town
9 whose major employer has just closed up shop? Will it
10 in fact be even worse off, because of the stigma of
11 being a nuclear waste dump? Sixty years is not a long
12 time. The waste will be around for a lot longer than
13 the jobs.

14 Recommendation seven is that the
15 Environmental Impact Statement should outline the
16 economic and the social impacts of decommissioning the
17 repository, and the steps proposed to ameliorate those
18 impacts.

19 Moving along, one of the major questions
20 which has to be dealt with in this assessment is the
21 matter of alternatives. If we don't bury the waste what
22 should we do with it? Now we understand that the
23 Environmental Impact Statement will be including a
24 review of disposal programs in other countries, and
25 disposal in other geologic media.



1 We would also argue that there should be
2 an examination of the "do nothing" option. That is,
3 leaving the spent fuel in storage at the reactor sites.
4 We believe continued on-site storage offers some
5 significant advantages. Storage is an inexpensive
6 proven technology. It leaves open future policy
7 options. It avoids the problems associated with
8 transportation. It allows for the waste to be monitored
9 and retrieved. And, of course, AECL has assured us that
10 it's safe.

11 We can easily envisage a situation in
12 which the Panel might judge the proposed disposal
13 concept to be feasible but undesirable, for reasons of
14 economics or public opposition. The availability of a
15 realistic alternative - continued storage at the reactor
16 sites - would be very helpful in arriving at that
17 decision.

18 Recommendation eight, therefore, is that
19 the Environmental Impact Statement should include a
20 detailed discussion of the economic, safety and policy
21 implications of continued storage of spent fuel at
22 reactor sites.

23 The nuclear industry is a subsidized
24 industry. The federal funding provided to AECL for
25 research and development dwarves the monies available



1 for research on conservation or alternate energy
2 sources.

3 Now AECL has indicated that the costs of
4 disposal will be recovered from consumers. It has not
5 promised to recover the costs of research. Although
6 these expenditures apparently now total some hundreds of
7 millions of dollars.

8 We feel that the failure to pass along all
9 costs to the consumer would have significant
10 implications for overall energy policy. Specifically,
11 it would provide a disincentive to conservation; it
12 would discourage the development of alternate
13 technologies, and it would constitute a subsidization of
14 the customers of the nuclear utilities by federal
15 taxpayers.

16 Recommendation number nine is that the
17 Environmental Impact Statement should include a detailed
18 accounting of all expenditures to date, and all
19 anticipated future expenditures, on research for the
20 disposal of nuclear fuel wastes.

21 In our tenth and last recommendation we're
22 going to venture into the realm of science. This does
23 lie outside our mandate as a community group, but the
24 issues here seem so important that we do feel obliged to
25 mention them.



1 Our particular concern here lies with the
2 Atomic Energy Control Board's Regulatory Document R-104,
3 which establishes the long-term requirements for
4 radioactive waste disposal. In simple terms, it sets
5 the criteria which a repository would have to meet.

6 Now we understand the criteria will be
7 discussed during the assessment and will be considered
8 by the Scientific Review Group. We would simply like to
9 recommend that three aspects of this particular AECB
10 document come in for particular attention.

11 First, we would argue for an examination
12 of the risk conversion factor. This factor relates
13 radiation exposure to mortality and to morbidity. The
14 factor which has been used by AECB appears to be
15 significantly lower than recent risk estimates contained
16 in the BIER V Report of the U.S. National Academy of
17 Sciences, the ICRP Draft Report of February 1990, and
18 the Gardener Report of February 17th, 1990, which
19 appeared in the British Medical Journal. We feel this
20 risk conversion factor needs to be looked at.

21 The second point we want examined is
22 AECB's decision that predictive modelling need only
23 extend 10,000 years. Now this time limit is justified
24 in the document on the basis that, and I quote,
25 "estimates of individual risk in the far future may be



1 subject to considerable error." Now rather than use
2 this uncertainty to call into question the usefulness of
3 computer modelling as a predictive technique, AECB has
4 instead chosen to apply this 10,000 year time limit.
5 Since, under some conditions, peak radiation exposures
6 are not expected to occur for tens of thousands, or even
7 millions of years, we feel this time limit is
8 unjustifiable.

9 The third area we would like examined is
10 the application of what's called the ALARA principle to
11 the disposal concept. The acronym ALARA comes from the
12 phrase "as low as reasonably achievable, taking social
13 and economic factors into account." This principle is
14 commonly used as an operating guideline in nuclear
15 facilities. Radiation exposures must not only be kept
16 below some specific target, but must also be kept as low
17 as reasonably achievable. Now AECB has decided to
18 excuse operators of nuclear waste disposal facilities
19 from compliance with this guideline.

20 To give you an example of what this
21 actually means in practice, under this regulation AECL
22 would not have to justify its decision to use thin skin
23 titanium containers instead of a much thicker walled
24 copper container proposed by Sweden, even though the
25 latter are expected to have a much longer life span and



1 thus result in lower radiation exposures. We believe
2 that the decision to abandon the ALARA principle needs
3 to be thoroughly examined.

4 To summarize, our recommendation ten is
5 that the assessment should include a detailed discussion
6 of a criteria enshrined in AECB's Regulatory Document
7 R-104. In particular, there should be consideration of
8 that document's risk conversion factor relating
9 radiation dose to morbidity and mortality, the 10,000
10 year time limit for demonstrating compliance with
11 individual risk requirements, and the lack of a
12 requirement that exposures be kept as low as reasonably
13 achievable.

14 That brings me to the end of our
15 presentation. I realize it's extremely dry going and I
16 thank you for your patience.

17 THE CHAIRMAN: Thank you, Mr. Bryan. I
18 don't know that I would say it's dry going. It
19 certainly is something which will need to be reread and
20 I can assure you that it will be examined very
21 carefully, as we've listened carefully to your
22 presentation here. It clearly contains a great deal of
23 meat and some assertions which will have to be checked,
24 but that is what you would expect.

25 Might I just ask one small question before



1 asking my colleagues if they have any points of
2 clarification.

3 In your recommendation four, you raise the
4 question, and it has been raised at least in an indirect
5 form by other participants elsewhere, whether AECL is
6 the appropriate agency to carry out future research on
7 nuclear fuel waste disposal. I'm wondering if you have
8 any suggestions, alternatives, to the AECL that we might
9 take into account in thinking further of this particular
10 recommendation.

11 MR. BRYAN: I'm not sure if such an agency
12 exists at this moment. I think it would involve the
13 creation of an agency. I think the main goal is to
14 separate the science from the commercial aspects.

15 THE CHAIRMAN: I see what you're getting
16 at there. Thank you.

17 Dr. Wilson.

18 DR. WILSON: I didn't find it a dry
19 document either, particularly when you're dealing with
20 public trust or mistrust, which is the key to much of
21 what we're talking about. So I thank you for raising
22 many of these issues.

23 In your preamble I was impressed that
24 you've done a questionnaire, public meeting and a
25 television phone-in show so that you have a feel of the



1 pulse of the community. But when people respond, you
2 know, not in my backyard, not in anyone's backyard,
3 that's very nice. But where would they suggest then?
4 Were you able to come back at them that we have this,
5 and something has got to be done?

6 MR. BRYAN: Yes, it was a problem,
7 obviously. There was some anger, frankly, that the
8 broader issues were not being looked at. That the
9 larger issues of nuclear policy were not examined, and
10 people were saying, you know, we shouldn't be going
11 ahead with this until we've looked at the production of
12 a waste. People were very angry about that, frankly.

13 As far as alternatives, the general
14 feeling was that disposal was the -- not disposal, I
15 should say storage on site at the reactors was the
16 preferred option. I think the main arguing point
17 there -- well, two main arguing points; one was the
18 transportation, the other was the fact that this waste
19 is monitored and can be retrieved, and people are very
20 frightened by the fact that once it's buried it will be
21 virtually impossible to correct problems should they
22 occur.

23 DR. WILSON: So there would be a high
24 value put on retrievability?

25 MR. BRYAN: I think so. Monitoring and



1 retrievability. I think -- well, obviously monitoring
2 without retrievability is very -- not particularly
3 advantageous.

4 DR. WILSON: Just before recommendation
5 two, you raise a number of questions about what's the
6 meaning of acceptability. Did you have any answers?

7 MR. BRYAN: No.

8 DR. WILSON: So you're simply raising the
9 question there?

10 MR. BRYAN: I'm simply raising the
11 question. I just get the feeling we should have some
12 sort of an intellectual framework in place here, that it
13 isn't good enough to simply fly by the seat of our pants
14 and then at the end of this whole process the Panel sit
15 down and say, well how angry were people. Were people
16 really that upset? I think we need something a little
17 better than that. I'm no magician. I'm not sure what
18 it is.

19 DR. WILSON: You also expressed the strong
20 view of the short time frame that community groups had
21 to get anything ready.

22 As you know, when the environmental
23 guidelines are finished by AECL there will be a time
24 lapse until the full hearings are held. What kind of
25 time frame do you think we should be looking at for



1 that?

2 MR. BRYAN: Well I know that you
3 mentioned -- Mr. Seaborn mentioned 90 days, I believe,
4 as being the --

5 THE CHAIRMAN: I said a period of at least
6 90 days for the Environmental Impact Statement, not the
7 guideline, the Environmental Impact Statement which is
8 the penultimate statement.

9 MR. BRYAN: Oh, I'm sorry. I
10 misunderstood Dr. Wilson's question.

11 So you're talking about the guidelines
12 themselves, how long should we have to comment on those?

13 DR. WILSON: That plus the other.

14 MR. BRYAN: I think the guidelines are
15 maybe more of a technical area and you may find less
16 interest from the general public in that particular
17 area. So you might be able to get by with less time. I
18 would think perhaps 60 days for the guidelines, the
19 draft guidelines.

20 The comment on the actual Environmental
21 Impact Statement, now I gather this is going to run into
22 some thousands of pages. Am I correct in thinking that?

23 THE CHAIRMAN: It may well be. That's for
24 AECL to decide what it needs to answer.

25 MR. BRYAN: I think 90 days for somebody



1 who is holding down a full-time job outside of this
2 process is obviously creating serious problems if they
3 wanted to get involved seriously, and a lot of people do
4 want to get involved seriously. I think 90 days is
5 quite inadequate, unless of course you want to give the
6 public so much money that they can afford to hire all
7 sorts of full-time researchers, but I don't think that
8 enough time is -- 90 days just isn't there, isn't it.

9 DR. REESE: Well, I just wanted to thank
10 him for a very thorough and thoughtful presentation. It
11 certainly raises a lot of questions.

12 MR. BRYAN: I hope so.

13 DR. REESE: And it doesn't really give any
14 suggestions for answers, and I can appreciate that. I
15 guess we're sort of stuck with trying to come up with
16 what the answers should be as to the methodology for
17 determining acceptability, acceptability by whom, is it
18 a hundred per cent acceptability, majority
19 acceptability. You know, these are great imponderables.

20 MR. BRYAN: I don't think it's an easy
21 task you have here by any means. I do think that there
22 has to be some discussion about what's meant by
23 acceptability and the Panel might want to consider
24 whether there should be some sort of a discussion paper
25 put out around that topic.



1 DR. WILSON: This may be an obvious one,
2 but when you talked about leaving it where it is in
3 storage facilities that can be monitored, you call it
4 the "do nothing," which I wondered about. It's not a
5 very useful thing. But you didn't address the question
6 of security, if in fact you're going to do nothing.

7 MR. BRYAN: Are you talking about security
8 in terms of human intervention or security in terms of
9 environmental impact?

10 DR. WILSON: Well whatever. I mean if
11 you're going to leave it where it is --

12 MR. BRYAN: I think the point is that
13 it's -- first of all AECL has assured us that it is
14 safe. In the time that the waste has been stored it has
15 not suffered any physical deterioration. It is
16 monitored and it is guarded where it is.

17 I'm not suggesting that this is a solution
18 that's going to last through the millennia. I'm
19 suggesting that perhaps we're premature in looking at a
20 disposal solution right now. Frankly, any time it is
21 left in the pools is to our benefit. It obviously is
22 losing radioactivity all the time. It's losing heat all
23 the time, and perhaps we should be thinking in terms of
24 a 600 year storage by which time most of the short-lived
25 fission products would be gone before we look at



1 disposal.

2 I don't know. I'm simply suggesting that
3 disposal at this point may be premature, and since we
4 have a solution that is obviously working quite well
5 right now maybe we should stick with it for the time
6 being, because there are obviously a lot of unanswered
7 questions regarding disposal.

8 DR. WILSON: Okay. Thanks.

9 THE CHAIRMAN: Thank you very much indeed,
10 Mr. Bryan. I reiterate it's a very full presentation
11 made to us and will warrant further examination by all
12 of us, others as well.

13 ---Mr. Bryan withdraws

14 THE CHAIRMAN: The third intervention this
15 afternoon, the third participant, will be from the
16 Golden/Red Lake Environment Group and I believe that Mr.
17 Charles Faust, Chairman of that group will make the
18 presentation on the group's behalf.

19 PRESENTATION BY MR. FAUST:

20 Good afternoon, Mr. Chairman, members of
21 the Panel. I would like to introduce Bonnie Satten.
22 She is also presenting with us as a member of our group.

23 I'd like to thank the Panel for allowing
24 us this time make our feelings felt on the subject.
25 It's a subject that touches all of us very deeply and we



1 look forward to following the process.

2 Before we begin our presentation we wish
3 to express our disappointment over the process of this
4 review. We feel there was not enough time to research
5 and prepare our submissions, and that the funding was
6 too little and too late to be effective.

7 In our case, in order to participate in
8 this scoping session, we have had to form a committee,
9 define our objectives, apply for funding and hire a
10 researcher all in less than two weeks. This left our
11 researcher exactly one month to do all the necessary
12 background work, such as ordering and reading pertinent
13 material and preparing this submission. Some of the
14 materials ordered through our public library system
15 arrived too late to be useful and indeed some didn't
16 arrive at all.

17 Furthermore, there was no advertising of
18 this process in our area. Had it not been for a chance
19 encounter of one our group members in Thunder Bay in
20 June, we would be completely unaware of these scoping
21 hearings.

22 The lack of publicity severely limits
23 community groups from participating in this process.
24 The disappointing number of intervenors in these scoping
25 hearings is not evidence of a lack of interest, or



1 apathy, but rather a result of this poor publicity.

2 Following are our comments on the process
3 and the concept.

4 MS. SATTEN: In terms of reference, we
5 believe that this review would be more significant if we
6 were allowed to comment on the nuclear industry in much
7 broader terms, such as, exploring alternatives to
8 nuclear power, energy conservation measures, and the
9 health hazards created by the massive piles of uranium
10 tailings. Strictly observed the terms of reference
11 force each person or group to either - accept the
12 nuclear industry's perspective and thus participate in
13 it - or to refuse to participate in it and thus accept
14 the nuclear industry's perspective. We see these
15 hearings as a win-win scenario for the nuclear industry
16 and a lose-lose scenario for all the rest of society.
17 These hearings should go ahead only once that
18 recognition has been made, and only with that qualifier
19 hanging over any conclusions which are reached.

20 Even if we accept their scope and
21 limitations, which we do not, the terms of reference are
22 critically flawed unless they recognize as a primary and
23 fundamental consideration of this process, the very real
24 possibility that the nuclear industry may be a dying
25 industry, may, inevitably be dead within a few decades.



1 These limited terms of reference mean we
2 are locked into a decision of 13 years ago to research
3 deep disposal only. It's putting all the nuclear eggs
4 in one basket.

5 Public awareness and attitudes regarding
6 environmental matters have changed dramatically in 13
7 years. Researching alternative energy sources and ways
8 of reducing consumption would lead to a progressive
9 solution. Again, the terms of reference must be kept
10 open.

11 It is thus our view that the extremely
12 short time imposed by FEARO, combined with the limited
13 scope of the terms of reference, precludes any
14 meaningful participation in this process.

15 Furthermore, we are outraged that the
16 federal government has totally ignored almost all the
17 recommendations of the Standing Committee on Environment
18 and Forestry. This is the Eleventh Hour I'm referring
19 to.

20 One of the most important recommendations
21 of the Committee was the moratorium on the construction
22 of nuclear power plants in Canada until Canadians have
23 agreed on an acceptable solution for the disposal of
24 high level radioactive waste.

25 Mr. Chairman, Canadians certainly have not



1 agreed on a disposal concept to date, yet the federal
2 government is increasing rather than reassessing its
3 support for nuclear expansion. These hearings, if they
4 refuse to recognize and emphasize their own limitations
5 of scope, will be only one more aspect of a federal
6 attempt to justify nuclear expansion - this time by
7 forcing a "solution" while hiding the problem.

8 The Committee also recommended "that the
9 Canadian energy strategy should formulate alternatives
10 that would encourage a reduction in energy consumption
11 and a decrease in stress on the environment from waste
12 created by the various energy producing techniques." We
13 see no evidence of this recommendation being taken
14 seriously either.

15 MR. FAUST: Regarding the siting of this
16 concept, our findings indicate that although AECL's
17 present disposal research is not site specific, and no
18 site will be selected before the approval of the
19 concept, Northern Ontario is a very likely candidate for
20 a repository.

21 This is evidenced in a Winnipeg Free Press
22 article on September 29th, 1990, which stated that
23 "Northern Ontario remains the most likely location for a
24 nuclear waste dump," and confirms our fears that AECL
25 may already be unofficially assessing potential disposal



1 sites in Northern Ontario.

2 As residents of Northern Ontario we are
3 very concerned about these findings. Since our part of
4 the province does not generate nuclear power, we feel we
5 should not be asked to bear the risk associated with
6 nuclear waste disposal. However, this does not mean
7 that we endorse the concept as long as it's not in our
8 own backyard.

9 We can confidently predict that should the
10 concept of deep burial prove "acceptable" and the siting
11 process begin, AECL will face fierce resistance and
12 opposition wherever they go. We conclude that Northern
13 Ontario will offer the least resistance, based on sparse
14 population and political clout.

15 We wish to emphasize that such questions
16 create extremely divisive forces within individual
17 communities, and among communities in any given region.
18 As Northerners, we resent the regional chauvinism aimed
19 at the North by large urban centres. Examples of this
20 attitude were evidenced in the recent low-level
21 radioactive waste siting process, and proposals to dump
22 Metro Toronto's domestic garbage in Kapuskasing and
23 Ignace.

24 To illustrate our point, we will relate to
25 you what happened in our community when the Siting Task



1 Force for Low-Level Radioactive Waste came to town.

2 Originally we were told by various
3 unofficial sources that our geology was not suitable for
4 a repository. However, attracted by the idea of a
5 substantial compensation package and the creation of
6 jobs, Red Lake Town Council invited the siting task
7 force to Red Lake. A community liaison group was
8 subsequently formed to examine and "educate" themselves
9 and the public on low-level radioactive waste.

10 The Township of Golden, Red Lake's
11 neighbouring community, had not chosen to be part of the
12 siting process and was not consulted or invited to take
13 part in the process when Red Lake entered into it. Yet
14 the close proximity of the two townships would have
15 meant that both would have been equally affected by a
16 dump, the only difference being Red Lake's reaping of
17 the financial benefits from it.

18 Shortly after the community liaison group
19 was formed, residents of Golden spearheaded an
20 opposition movement composed of concerned citizens from
21 both townships. The issue was resolved when the CLG,
22 based on strong opposition from residents of both
23 townships and much of the Red Lake business and
24 professional community, recommended that Red Lake be
25 removed from the siting process, and it was. The



1 Township of Golden has since passed a by-law prohibiting
2 the disposal of all levels of nuclear waste within its
3 boundaries.

4 Today the threat of a low-level dump
5 appears to be gone, but the social costs of this
6 exercise are still very much with us. The debate over
7 this issue divided many families and friends. Vocal
8 opponents to the concept were labelled "radicals",
9 "trouble makers", and "damned environmentalists" by
10 proponents of the waste site. Supporters of the site
11 were labelled "sell-outs", "dupes" and "traitors" by the
12 majority of the community. The unrest and divisiveness
13 caused by this issue are still being felt today.

14 If, in fact, our geology was not suitable
15 for a repository, could not the concerned authorities
16 have simply turned down Red Lake's invitation, thereby
17 avoiding all the upheaval?

18 As you can see, the economic dynamics make
19 it hard for small communities such as those in Northern
20 Ontario to reject potential economic benefits on
21 environmental grounds. To alleviate fear and
22 speculation, and a repetition of our experience, we feel
23 it is of the utmost importance that the environmental
24 review of high-level nuclear waste address the following
25 points before the siting process begins:



1 Details by Environment Canada, AECB and
2 other federal and provincial departments and ministries
3 concerned, of the exact locations suitable for potential
4 disposal sites.

5 Secondly, details on the transportation
6 methods and route to be taken by carriers of the waste.

7 Third, full public consultation, with
8 ample notice for citizens to gather information on
9 high-level waste in communities being considered, and
10 the neighboring communities potentially affected by the
11 proposed repository.

12 Then, finally, full public consultation in
13 all communities through which the waste would be
14 transported.

15 MS. SATTEN: The burden to further
16 generations: Out of sight - out of mind.

17 AECL claims that burying nuclear fuel
18 waste in the Canadian Shield will relieve future
19 generations of the burden of looking after the waste.
20 Contrary to the position of AECL of unburdening further
21 generations, we see this concept as unburdening the
22 producers of the waste of a very large problem.

23 Our view is that burying the waste may
24 create more problems than it will solve. Even if the
25 concept proves "acceptable," future generations will



1 still be faced with the hazards of transportation. We
2 maintain that future generations will inherit our waste
3 in any event, and that an above ground solution would
4 allow them the flexibility of retrieving, neutralizing
5 and safely disposing of our waste.

6 Furthermore, we feel deep burial would
7 render their inheritance a potential time-bomb, by being
8 impossible to monitor and almost impossible to retrieve.
9 Deep disposal would only relieve AECL of its greatest
10 barrier to unlimited expansion.

11 AECL states that there is no technical
12 urgency to begin disposal and the used nuclear fuel is
13 in a safe temporary storage system that they can
14 continue to use for many decades.

15 In our opinion, a more logical alternative
16 to waste disposal would be to keep the waste on the
17 surface until such time as scientists find a process to
18 neutralize the wastes and make them harmless. This
19 would provide an incentive for the industry to develop
20 technology for safe disposal. Surface storage at the
21 source would provide the best guarantee that it would be
22 properly looked after. Human nature dictates that when
23 it comes to one's "own backyard" one tends to pay a
24 little more attention than if it was buried somewhere in
25 the "back forty." Fifty years represents a long time



1 for break-throughs in disposal technology provided that
2 research and development is focused in that direction.

3 Keeping the waste above ground would allow
4 for monitoring and retrieving for neutralizing,
5 reprocessing and safe permanent storage. It would also
6 force the nuclear industry and the public to be aware of
7 the full extent of the nuclear commitment and its
8 potential consequences.

9 MR. FAUST: Regarding the safety of the
10 disposal concept, while the technical aspects of the
11 disposal concept are outside of our area of expertise we
12 would like to offer our thoughts on the question of
13 safety. We can hardly imagine the length of time it
14 will take for these wastes to return to a near natural
15 state. How then can anyone guarantee that these toxic
16 materials will remain safely contained and isolated in
17 the interim?

18 We have been wrong before and suffered
19 dire consequences. Nightmares like Love Canal and Lake
20 St. Claire illustrate the vulnerability of underground
21 disposal. In the case of nuclear waste the consequences
22 are far too great to proceed with a short-sighted
23 expedient solution.

24 We also look at the socio-psychological.
25 We believe that there is a negative impact on anyone who



1 is exposed to a perceived danger regardless of how real
2 that danger happens to be. Never was this more true
3 than in the case of high-level nuclear fuel wastes. One
4 need only look at the emotional plane on which this
5 concept is argued. Consider for a moment the case of
6 the community which is asked to accept the title of
7 "Nuclear Waste Dump Site of Canada." Imagine the fear
8 the residents would be forced to live with.

9 If the proposed site is located at any
10 distance from the reactor which produced it the same
11 perceived danger would extend to anyone within the
12 sphere of influence of the transportation corridor.
13 Regardless of how "safe" a concept is, human error will
14 always be a factor. It seems abhorrent to us that we
15 might be among those required to live in the shadow of
16 this threat to life itself.

17 Regarding the stewardship of the land, as
18 Northerners we feel an inherent responsibility to
19 protect the undeveloped land surrounding our
20 communities; indeed, to the remote corners of our
21 province. This idea stems from our dependence on the
22 natural forces around us.

23 The thought of burying the most deadly
24 poison known to us deep in the heart of what we consider
25 sacred is intolerable. In this matter we feel a close



1 kinship with the concerns of Aboriginal People.

2 There will be economic casualties. Most
3 of the potential sites which would satisfy the criteria
4 for the deep burial concept subsist presently on a
5 combination of resource extraction and tourism. Of
6 these, the former is considered more or less
7 sustainable. Tourism is our greatest sustainable
8 industry and also the one most likely to be adversely
9 affected by the negative publicity surrounding the
10 creation of this type of dump site. Recent attempts to
11 develop new fly-in tourist opportunities determined that
12 very few lakes exist in the northern part of Red Lake
13 District that do not already have some form of
14 commercial fishing or tourist activity on them. The
15 point we wish to make here is that the "remote" areas of
16 this province are perhaps not as remote as a glance at
17 the back side of a map of Ontario would indicate.

18 Regarding the possibility of an
19 international dump site, it is our view that acceptance
20 of the deep disposal concept would make it possible for
21 Canada to become an international high-level nuclear
22 waste dump site. AECL has a vested interest in
23 developing this concept. The incentive for other
24 countries to purchase Candu Reactors would be increased
25 if the supplier agreed to relieve them of the problem of



1 disposing of waste fuel.

2 We would rather see Canada adopt a
3 progressive role in helping to close the book on nuclear
4 energy and thereby halt the production of nuclear waste.
5 Our international image would be better served by
6 helping other countries develop energy sources that
7 wouldn't carry the liability of nuclear energy.

8 MS. SATTEN: In conclusion we believe that
9 the nuclear industry is a dying industry. This is not
10 an environmentalist's fantasy, although growing
11 environmental awareness will expose more and more over
12 the coming years the true costs of the nuclear industry.
13 But if environmental awareness is one aspect of modern
14 life, economic reality is another. And as the true and
15 complete costs of the nuclear industry, including not
16 only energy production, but waste disposal, accident
17 costs and health effects becomes known, the bottom line
18 may very well make nuclear power economically
19 unacceptable. As an example, the cost of the Chernobyl
20 disaster is somewhat above eight million roubles and
21 still rising.

22 If then, you accept as a possibility the
23 fact that the nuclear industry may die, you must
24 consider the implications of that on the concept of deep
25 disposal of high-level waste. We live in a mining



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1 community. We know what happens when an industry dies.
2 We know that when it dies, the incentive and the money
3 to finance the clean-up dies with it. We drive every
4 day past abandoned mine sites, acres of tailings, piles
5 of waste, ore and heaps of debris - all left because
6 there is not enough money to clean them up.

7 If the nuclear industry dies, and there is
8 a very real chance of it doing so, what will happen to
9 long-term handling of this very long-term waste?

10 We suspect that deep disposal is an
11 attempt to avoid long-term handling responsibly by
12 hiding it "out of sight - out of mind." Moreover, if it
13 is hidden in a remote area it will be even less likely
14 to be noticed when something goes wrong, and something
15 will go wrong.

16 Because of its danger to the population
17 this is one of most high tech industries in the world.
18 The most sophisticated protection systems possible have
19 been devised to prevent accidents. Yet the accidents,
20 serious accidents, involving the release of radioactive
21 elements, number not in the dozens, but in the hundreds.

22 Deep level disposal is simply one more
23 high tech solution to the problems of this dangerous
24 industry, and like the others it too will fail sooner or
25 later.



1 The very real danger is that if it fails
2 at any depth in a remote area, the contamination may be
3 significantly advanced before it is noticed. Moreover,
4 if it is in a remote area, the incentive (political and
5 social) to clean it up will be less urgent.

6 Deep level disposal is an attempt to avoid
7 responsibility for high-level waste. Environmental
8 awareness world wide has taught us that ultimately the
9 most effective, the only way to ensure environmental
10 responsibility to is make the producers of the waste
11 deal with it themselves. Those who benefit most must
12 also accept the responsibility for the waste. It is
13 socially unacceptable for one country or area to reap
14 the benefits of an industry and then dump its waste on
15 another country or area. Remember the example of the
16 PCBs.

17 For this reason, and for reasons of
18 monitoring and, ultimately of recycling, the best
19 solution to high-level waste storage is to continue to
20 store it on surface, on site, until a better solution
21 than deep level storage is developed.

22 In summary, we wish emphasize the
23 following points.

24 MR. FAUST: One, the nuclear industry is a
25 dying industry and Canada must play a leading role in



1 promoting the reduction of nuclear power.

2 Two, the government should re direct some
3 of the funds now being used to research and review this
4 concept, to researching and implementing efficiency, and
5 reduction at the source.

6 Three, the federal focus should be to
7 stop building nuclear reactors and begin phasing out
8 existing stations, as efficiency and alternative energy
9 sources come on stream.

10 Four, nuclear waste should be kept on the
11 surface, near the reactors where, the waste is
12 generated.

13 Five, our group is adamantly opposed to
14 the concept of disposal by deep burial of high-level
15 nuclear fuel waste anywhere in Northern Ontario or in
16 any other part of the country.

17 I thank you, Mr. Chairman, members of the
18 Panel and members of audience.

19 THE CHAIRMAN: Thank you, Mr. Faust and
20 Ms. Satten. You have certainly spoken with vigor and
21 obvious conviction on the points you have made.

22 I think, as you yourselves recognize, a
23 number of the matters which you have raised are outside
24 the mandate of this Panel. That you have objected to
25 the terms of reference of the Panel, I just note that.



1 But I would draw your attention to what I said in my
2 introductory remarks, and that is my hope that in the
3 not too distant future there will begin a review of a
4 broader nature, and that may provide the opportunity for
5 a discussion of at least some of the matters you have
6 raised.

7 You have, of course, in addition, put
8 forward your views very clearly on matters which are
9 well within the mandate of this Panel, and we have noted
10 them and we will continue to note them carefully.

11 May I ask whether any of my colleagues on
12 the Panel wish to seek further clarification of what you
13 have had to say in your presentation to us.

14 Dr. Wilson.

15 DR. WILSON: Just a few things, partly on
16 process. You critique the poor publicity and the way
17 you found out about this by chance. Do you have some
18 creative suggestions about a better way to do the
19 publicity?

20 MR. FAUST: I guess my question would be
21 on what scale were these proceedings advertised? We
22 have local newspapers, and I would suggest that perhaps
23 an advertisement in many of these local communities
24 would be a first step.

25 DR. WILSON: On page 2 you mention the



1 advisability of researching alternative energy sources.
2 Do you have any idea who would pay for that?

3 MR. FAUST: We see the research funding
4 that goes into the development of the nuclear industry
5 and the deep disposal concept, in particular, as being
6 over indulgent in one area. We feel that by separating
7 that same funding and applying it to more of a general
8 application than to some of these other areas that the
9 results to the Canadian public would be much more
10 beneficial in the long run and in the short term.

11 DR. WILSON: On page 6, before the siting
12 process, again you mention full public consultation with
13 ample notice for citizens. What do you consider ample
14 notice for citizens?

15 MR. FAUST: I think that that statement
16 was generated by our frustration with the fact of having
17 had to scramble to get a committee formed, the funding
18 for this presentation. How that would relate to the
19 next one, a committee is formed, we are in gear so to
20 speak, so that a following -- a follow-up to this one it
21 may not be as critical.

22 DR. WILSON: But can you be any more
23 specific? I mean that's a pretty general term. It will
24 come out, and then you're likely to say that wasn't
25 ample. I know it's a guess at this point.



1 MR. FAUST: Yes. I think that the 90 day
2 figure would be reasonable at this point.

3 MS. SATTEN: It seems that things take
4 even longer because we're in an outlying area. We don't
5 have direct access to a large library. We ordered
6 pamphlets. Sometimes we order them twice from different
7 sources and we still didn't receive them. So we need
8 more time when we are isolated.

9 DR. WILSON: I found the point on page 10
10 about the tourism industry very interesting. It's the
11 first time it's come up.

12 Have you done any consultation with
13 tourist operators in your area to substantiate?

14 MS. SATTEN: In the case of the low-level
15 radiation siting force that was in Red Lake, this
16 argument came up. They perceived danger to tourists
17 because it is a major industry there. Tourist camp
18 operators at that point, and we were just talking
19 low-level radioactive waste, were stating they did not
20 want any part of it, and they felt it would directly
21 influence their clientele.

22 DR. WILSON: Okay. Thank you.

23 THE CHAIRMAN: The fourth member of our
24 panel today, Mr. Van Vliet, has just joined us. He will
25 have to read the presentation. As I say he was a little



1 late in getting here and didn't have the benefit of your
2 oral presentation.

3 I doubt that you could put questions
4 unless something has come up just in the last two
5 moments, Pieter.

6 MR. VAN VLIET: Well, I have done a quick
7 scan and on page 12 I see that for this reason and for
8 reasons of monitoring, and ultimately of recycling, the
9 best solution to the storage is stored on surface until
10 the better solution is found, and then the deep level
11 storage. Could you identify to the Panel perhaps any
12 other alternate methods that you had in mind?

13 MR. FAUST: I don't have any specific
14 solutions in mind. I think, and to answer your
15 question, I would like to say that 1990 is a very
16 pivotal time, I believe, in the development of
17 technologies. The material is now being safely stored
18 according to Atomic Energy of Canada, and I think our
19 group would support a permanent storage on the lines of
20 50 to a hundred years at the source, at the site where
21 the material is now located, believing that in the next
22 20, 40, 50 years we will all experience developments in
23 technology that far surpass our dreams of today.

24 So while I might not have a specific
25 solution, and I know that science likes to work on



1 tangible ideas, it is my belief, and the belief of most
2 of the members of our group and the public that I've
3 spoken to, that this possibility is very real, a very
4 likely possibility, as is the development of alternative
5 sources of energy.

6 I'm also confident that a manner of safe
7 disposal will come along in the same light that would
8 enable us to be able to handle these wastes in something
9 other than hiding them as far out of sight as possible.

10 I don't know if that answers your
11 question. At this point that's about the best I can
12 offer.

13 MR. VAN VLIET: I think you have answered
14 it in a way that I think is based on the information you
15 probably have.

16 Have you made comparisons with other
17 countries as to their disposal methods in coming to the
18 conclusion or is this your own opinion?

19 MR. FAUST: This is an opinion. We did
20 look at other countries' solutions, and found them to be
21 no further ahead. In fact in some cases quite a bit
22 further behind. That substantiates our claim that this
23 industry is too loaded with liabilities, and that the
24 costs involved in prolonging it from the procurement of
25 the mining of the uranium through to the disposal of the



1 waste will put it right out of the ball park as far as a
2 viable energy source. We don't need this. We would
3 rather look at the reduction of consumption, more
4 efficient use, and I think that there are statistics now
5 coming out that show a very real saving, a very real
6 saving through efficiencies.

7 MR. VAN VLIET: Thank you.

8 THE CHAIRMAN: Well, thank you both very
9 much indeed for the presentation and for the responses
10 to the supplementary questions we put to you. We shall
11 certainly be studying the written version of what you
12 had to say very carefully.

13 MR. FAUST: Thank you.

14 ---Panel withdraws

15 THE CHAIRMAN: Our fourth participant this
16 afternoon was to have a period this evening but for a
17 number of reasons as it's more convenient and
18 appropriate for him to appear now and we welcome him
19 certainly for that reason, Mr. Tom Miyata. I'm not sure
20 whether he's being accompanied by Mr. Dick Hiner or
21 whether he's coming later.

22 PRESENTATION BY MR. MIYATA:

23 Mr. Chairman, members of the Scoping
24 Panel, thank you very much for allowing me to speak this
25 afternoon rather than this evening. It's a long ways



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1 back to Atikokan and I hope to get back. My vehicle was
2 acting up and so I have very great fears about making it
3 back there.

4 It is uncertain as to whether one should
5 thank you for the opportunity to present one's concerns
6 and questions, or whether this is another public
7 relations ploy on the part of government and the
8 pro-nuclear groups to make worried citizens dissipate
9 their efforts in a futile exercise. I am hopeful that
10 this Panel will do its honest best to treat our concerns
11 with careful consideration. Otherwise, I would not be
12 here.

13 Somehow, this present exercise set up by
14 FEARO does not seem quite right. The obscure notice
15 advertising the hearings, the short preparation time
16 given us, the hurried nature of its first phase and the
17 amount of paperwork required apart from our brief all
18 seem indicative of a hidden rushed agenda. We've been
19 assured time and again that there's a lot of time before
20 the final decision on these wastes must be made since
21 they're stored safely at the reactor sites. Why the
22 rush now?

23 Your mandate also seems contradictory as
24 well - to assist the governments in reaching decisions
25 on the acceptability of the disposal concept, and to



1 ensure the safe long-term management of nuclear fuel
2 wastes in Canada. Disposal means to get rid of, and in
3 this case bury it in an inaccessible sparsely populated
4 area and then at the same time handle or conduct for a
5 long time. An impossible contradiction. "Dump and
6 forget" with hopefully nothing happening during our
7 lifetime seems to be the mandate, and if that is the
8 idea, the public should be told this. If this is your
9 mandate, you have been put into a straight jacket, just
10 as the nuclear research scientists only had the freedom
11 to study a narrow, narrow field for waste disposal. If
12 the deep rock disposal concept is "dump and forget" it's
13 not acceptable.

14 If this Panel comes up with reasonable
15 recommendations, what chance is there that they will be
16 accepted and implemented? The recommendations of the
17 Royal Commission on Electric Power Planning under Dr.
18 Porter, and the recommendations of the Ontario Select
19 Committee on Hydro Affairs have been appended. The
20 Royal Commission went through a long, thorough and
21 expensive hearing, while the Select Committee, with a
22 large number of MPP's from all parties, carried out
23 comprehensive hearings throughout Ontario, even in
24 Atikokan. Most of their recommendations were ignored.
25 Will yours also be ignored if they don't agree with



1 AECL's concept?

2 Why are we scoping? According to Canadian
3 government guidelines, isn't the one who proposes to
4 construct a project with federal funds required to
5 identify then present alternatives and address the
6 public's concern about the project? How can we, the
7 laymen public, be expected to raise and touch upon every
8 relevant question or concern. Your scientific panel
9 will further shorten our list during this exercise and
10 then AECL provides answers to the shortened list of
11 concerns in its Environmental Impact Statement. Somehow
12 this seems backwards according to what an Environmental
13 Assessment and Review Process should be. Ironically,
14 AECL may have already gone through a scoping exercise of
15 its own with about 60 environmental groups in the mid
16 1980s on this very issue of hard rock disposal of
17 nuclear waste. Does this Panel have a copy of the
18 report on the AECL's exercise, or do you know where one
19 can get one? Has AECL already written up an
20 Environmental Impact Statement that we are supposed to
21 be working towards?

22 Can this Panel go back to FEARO and
23 reverse the process so that AECL does an environmental
24 assessment and then we, the public, study it? Can it go
25 back and ask for a broader mandate? Can it go back and



1 get the mandate to report to someone higher than the
2 Minister? Hopefully, that way the recommendations that
3 you make may not be ignored. As significant
4 recommendations from this exercise must not be stored
5 away and then destroyed or forgotten or any credibility
6 left will be destroyed if it is put away.

7 The AECL's questionable practices in
8 Atikokan, and the informational meetings which occurred
9 in Atikokan, in which nuclear energy was touted as safe
10 and clean and being able to create many jobs. It was
11 put in hundreds of millions of dollars. Unfortunately,
12 several untrue reassurances eventually surfaced.

13 Community Approval, a letter by Egon
14 Frech, Head, Waste Management AECL at the Whiteshell
15 Research Facility, was printed in the Atikokan Progress
16 on May 3rd, 1978. Referring to community approval of a
17 nuclear waste repository he is quoted as saying:

18 "Atomic Energy of Canada Ltd. has stated
19 that the final decision on the location of
20 a repository will be up to the people of
21 the area involved, and that the facility
22 would not be located in an area where the
23 majority of the residents do not want it."

24 Gradually this shifted to "AECL will not
25 recommend that it be put in an area where the majority



1 of the people don't want it," as stated by Alex Mayman
2 from AECL, on March the 27, 1980.

3 When told that Egon Frech had written that
4 a repository "would not be put in an area where the
5 majority opposed it," Mr. Mayman said, "Mr. Frech isn't
6 the Prime Minister of Canada, nor the President of AECL
7 either, but he certainly can't speak for AECL." And yet
8 he was our contact in our community and he came and gave
9 informational meetings to which we went and had all
10 these statements made to us. I think that what you're
11 reading into that statement is more than I think Egon
12 had the power to state. Further on in the questioning,
13 Mr. Mayman was asked how the wishes of the majority were
14 to be determined other than by referendum. Mr. Mayman
15 said the election of local officials was the proper way
16 to gauge majority wishes on a specific problem.

17 Another questioner said; "We have received
18 many assurances such as 'a waste disposal site will
19 never be located near a community unless there's
20 approval', now you're telling us that the decision has
21 nothing to do with AECL, that these reassurances are
22 meaningless. They mean nothing - that the only people
23 who could have given us assurances like that are our
24 federal or provincial governments. These people have
25 never come to us. We've never heard from them."



1 Today, community approval means nothing in
2 the decision making process. It is best summarized in
3 ACNR's, this is the Atikokan Citizens for Nuclear
4 Responsibility, brief to the Ontario Select Committee on
5 Hydro Affairs.

6 In fact, the situation may be worse than
7 we originally thought. Those vague promises spoken by
8 AECL representatives at meetings in Atikokan ("the
9 people will decide," community approval must be
10 obtained") or at a Porter Commission hearing in July,
11 1977, ("we are not going to put a facility of this type
12 into any area where the people don't want it. That's on
13 record.") are not borne out by the wording of official
14 AECL documents or letters.

15 In AECL's October, 1978 publication
16 "Management of Radioactive Fuel Waste," we read, "the
17 decision (on a demonstration facility) will take into
18 account the wishes of the community as expressed through
19 its elected representatives", or, on a later page, "the
20 elected representatives of the communities will be
21 invited to me participate in the decision on whether the
22 facility is to be built in their area."

23 Clearly, it is not the people, but only
24 elected representatives who are promised a say. What is
25 more, these elected representatives will only



1 participate in the decision. Their wishes will only be
2 taken into account. In other words, the powers that be
3 reserve the right to decide the matter any way they
4 wish.

5 Now whose words are we to believe? Local
6 elected councils will be consulted before a decision is
7 made. AECL should not have "misspoken" or gone beyond
8 their mandate in their public relations program to
9 reassure us while they continued their Atikokan drilling
10 program. AECL has very little credibility with us after
11 such a sham.

12 On March the 4th, 1980, Egon Frech was
13 asked, "If this thing was built and it did not get out
14 of hand and explode or whatever, how much effect is it
15 going to have on the community as a whole? How
16 dangerous is this radioactive material going to be?"
17 Frech told us, "It can't explode." Well, unfortunately,
18 a large area near Kyshtym in the Soviet Union is now
19 thought to have been heavily contaminated by radiation
20 after an explosion of a nuclear waste site during the
21 late 1950's. Mr. Frech says it can't explode because,
22 and I quote, "There just isn't enough fissile material",
23 Which is true. Unfortunately, Mr. Frech did not know
24 there are other types of explosions besides nuclear ones
25 or did he, and said what he did just to reassure us.



1 What is the economic and social cost of such
2 "impossible" accidents?

3 Questionable research on plutons.

4 Originally the research drilling program was to be at 6
5 to 10 locations. Later the numbers were reduced to 8
6 different generic types of rock in many locations. At a
7 meeting on March the 27, 1980, when asked how many more
8 research sites there would be after the second type in
9 Atikokan, Mr. A. Mayman of AECL stated, "I'd be prepared
10 to say at least two, probably three, maybe six. My
11 perception is that the thing would just not fly with us
12 having looked at less than that." As far as we know,
13 only two pluton rock conditions, fractured granite at
14 Atikokan, and highly fractured granite at Whiteshell
15 Nuclear Station in Manitoba were researched.

16 On March the 27, 1980, an AECL scientist
17 said that a horizontal fracture was discovered 940
18 meters below the surface. This is at the test drilling
19 near Atikokan. It came out not totally unexpected, but
20 in the Atikokan Progress on November the 28th, 1979, it
21 was stated that "it (the fracture) could simply be a
22 freak." From "freak" to not totally unexpected after
23 four months of public relations research? Give us a
24 break.

25 International research on the burial of



1 nuclear waste. Different countries are working with
2 different materials such as salt, clay, shales,
3 limestone, the sea bed, and the materials under the sea
4 floor, they even considered glacial deposits. According
5 to Mr. Mayman, "given the right amount and attention,
6 you could make any one of these sorts of formations
7 work. You have to do different things to different
8 ones, but all of them will work if you use them
9 correctly."

10 How is the public supposed to have any
11 confidence in research done by AECL? The other
12 countries with 20 to 30 times the Canadian effort have
13 not been able, "to do different things in different
14 ones" to find a safe disposal in the 10 years since Mr.
15 Mayman made his statements.

16 It seems like AECL is going through a
17 research charade in order to satisfy superficial public
18 scrutiny before getting permission to dump its nuclear
19 waste.

20 Media bias. A university professor had
21 carried out the first national sample survey of the
22 media to discover Canadian attitudes to nuclear power.
23 He focused his attention on Atikokan because it was the
24 "exception to the rule" of "NIMBY" in the media material
25 he studied with regard to nuclear research drilling.



1 The media may have been influenced by
2 AECL. Why did the outside world not report on the
3 significant amount of fight which occurred against AECL
4 in Atikokan? The letters and the anti-drilling petition
5 with 1,680 signatures sent to three levels of government
6 and the demonstration at the drilling site, all in 1979,
7 were not reported sufficiently to show that there was
8 opposition to AECL. This professor thought that we were
9 for nuclear waste.

10 The distorted picture presented on the CBC
11 National News of July 14, 1979, and that was Bastille
12 Day for us, may be typical of the suppression of
13 anti-nuclear activity in Atikokan. The newscast began
14 with 'Arrests are pending.' I'm sorry, but I have to go
15 by memory on this. I was not able to research to get
16 the exact wording, but something to the effect that
17 'arrests are pending' is how it was introduced while
18 showing scenes at the drill site, petitions with 1,680
19 signatures strung out around the site and fluttering in
20 the breeze, folk singers, a town councillor, an MPP, and
21 concerned citizens who had driven up a narrow gravel
22 logging road to the remote location. Maybe 15 seconds
23 of negative comments about the protesters with no
24 explanation for our "side." Our demonstration was
25 simply to lead into a one and a half minute,



1 approximately, explanation of AECL's research plan, some
2 on location and some library footage. Is the bias due
3 to convenience? AECL has capable, accessible
4 spokespeople, prepared handouts, and a handy library of
5 film footage. If not laziness on the part of the
6 newsmen, could it be AECL pressure tactics?

7 On April the 14 to 16th, 1979, when
8 ACNR's - this is the Atikokan Citizens for Nuclear
9 Responsibilities - petition was being carried around
10 town, an AECL supporter programmed the local community
11 television station to play AECL's presentation to the
12 Atikokan Township Council over and over again for three
13 days. We didn't realize this was going on until one of
14 the people we had gone to see said, 'You see the nuclear
15 waste program on television?' I said, 'What?' And they
16 showed it to me and they had been playing it
17 continuously.

18 I'm sorry, I've lost my place here.
19 Letters to the editor from both sides of the issue were
20 printed in the local paper, but, in an editorial, the
21 editor stated that no more letters written by one of
22 ACNR's members would be printed.

23 The AECL supporter from the preceding
24 paragraph, the fellow who put on the tape continuously,
25 had his pro-nuclear letters published without



1 restriction. Keeping track of the media and responding
2 quickly to negative nuclear views seemed to be carried
3 out to extremes by AECL.

4 Lydia Bartsch from Atikokan Citizens
5 Nuclear Waste Information Committee was interviewed on
6 the CBC radio show "As it Happens" on August the 5th,
7 1983, regarding her resignation as chairman of this
8 organization. On August the 8th AECL telephoned CBC
9 regarding the possibility of doing an interview as a
10 rebuttal to the interview of Bartsch. On August the
11 10th, Shemilt, from AECL's TAC - now we thought this was
12 the independent technical advisory committee - by
13 telephone with AECL discusses Bartsch's interview on
14 radio. He said he would provide her with TAC reports
15 and information. He wrote a letter saying he heard her
16 on the radio and thought she might be interested in some
17 TAC information.

18 Another example of AECL pressuring the
19 media. "Canadian Consumer" published an article
20 critical of the nuclear industry in October 1979. The
21 first column of the nine column article described
22 Atikokan's situation and started with "This nuclear
23 meeting is not a public meeting." In the letters to the
24 editor in the February 1980 issue, Exhibit 13, Mr.
25 Lewis, Principal, Atikokan High School - now he was the



1 principal. He became the Director of Education. He
2 also was a councillor and he also became the Reeve
3 eventually, and he was supportive of AECL's efforts -
4 Mr. Lewis, Principal of Atikokan High School used
5 misinformation about the Atikokan situation to discredit
6 the whole article. He claimed the sign posted on the
7 meeting door said, "This is not a public meeting,"
8 whereas Bettina Miyata had quoted, "This nuclear meeting
9 is not a public meeting." As you can see, the original
10 sign, and I have a copy of it, "Tonight's nuclear power
11 meeting is not a public meeting," and yet it was
12 referred to as being misquoted to discredit the Canadian
13 Consumer's article about nuclear waste.

14 "The nuclear meeting is not a public
15 meeting." As can you see, the original sign shows her
16 to be telling the truth. He, that's Mr. Lewis, said,
17 "she also was instrumental in bringing Dr. Edwards to
18 Atikokan." That, however, was my responsibility and was
19 done with some difficulty. He further went on to state,
20 "AECL was invited to Atikokan to drill for research
21 purposes. It was not invited to start surveying for
22 nuclear waste sites."

23 The wording of the Resolution number
24 #135/79 of the Township of Atikokan is as follows:
25 "That the Township of Atikokan allow AECL to test drill



1 rock formations in the Atikokan area in one of the types
2 of rock that may serve as a nuclear waste depository.
3 It is understood that this allowance does not commit
4 Atikokan as a nuclear waste depository site." No
5 mention is made of "research purposes" and maybe they
6 were thinking of the term of bank deposits so they were
7 referring to this as depository.

8 If the rocks proved suitable, there is
9 nothing to prevent AECL from making the studied pluton
10 into a nuclear waste dump. Mr. Lewis uses innuendos to
11 discredit me with the statement, "It would be
12 interesting to know Why Mr. Miyata requested Atikokan TV
13 Productions not to replay the tape of Dr. Edwards' visit
14 to Atikokan. In my view, Dr. Edwards is one of the most
15 credible people from whom the Canadian public can get
16 information on the nuclear issue." And I agree with him
17 on that point.

18 Thus it is implied that I prevented an
19 accurate picture.

20 Attacks such as this made the magazine
21 defensive. "There may have been some inaccuracies in
22 our nuclear story. Nevertheless, the central theme
23 stands as expressed. The CAC has recently formed an
24 energy committee to increase its expertise in this field
25 and representations from the nuclear industry are



1 welcomed." So the way is open for AECL to go and talk
2 to these people.

3 How sad. Hopefully "Canadian Consumer"
4 has not become a nuclear supporter. Even the National
5 Film Board of Canada received AECL phone calls about the
6 Atikokan nuclear situation. How much has the media been
7 forced to co-operate by behind the scenes AECL tactics?
8 Will this Panel delve into this aspect?

9 AECL, AECB and Dr. K. Hare: A credibility
10 problem. AECL, Atomic Energy of Canada Ltd., a
11 federally funded organization, has the task of
12 promoting, developing and selling the acceptance of
13 nuclear energy to society. Long ago, the prospects of
14 cheap clean energy sold itself. Unfortunately, deadly
15 end products of nuclear fission accumulated as well.

16 Today the true cost of nuclear energy is
17 too high for any private company to risk investing in
18 it. An estimated cost of 300 to 400 billion dollars
19 damage from the Chernobyl accident, as well as suspicion
20 of increased childhood cancers near nuclear plants,
21 makes it unprofitable and unattractive.

22 Nuclear energy may even be considered
23 repulsive. Only government supported nuclear industry
24 can survive. Ontario hydro could not pay for a 300-400
25 billion accident like Chernobyl or the unknown high cost



1 of a Kyshtym.

2 AECL's job is to pump up and revive a
3 dying industry, while at the same time looking after
4 public safety from nuclear power. Economic and safety
5 issues are usually in opposition or conflict. To
6 promote one may be at the expense of the other, leading
7 to a conflict of interest. AECL must be relegislated to
8 be only the promoter of nuclear energy and another
9 equivalent body created with equal powers to promote the
10 nuclear safety aspect.

11 AECB, the "watchdog" of the nuclear
12 industry has been exposed in the past as an inept
13 promoter of nuclear energy. The ideas from its Inhaber
14 report, AECB 1119, titled "Risk of Energy Production,"
15 were printed in "New Scientist" and "Science", allowing
16 peer review and they were attacked unmercifully.
17 Inhaber's work was described as "based on a
18 pseudo-scientific methodology", "what drivels",
19 "rubbish", "blatant distortion", "a scandal", "a morass
20 of mistakes" and "the most incompetent technical
21 document ever circulated by grown-ups," to quote a few
22 comments.

23 Both revisions 1 and 2, as well as the
24 original documents, are no longer available. After a
25 long wait AECB informed us that they had quit trying to



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1 correct it. This was correction number 3 they were
2 working through and it was so flawed that they had to
3 give up on it. They gave some long winded explanation
4 and it's in the exception, Exhibit 16.

5 Unfortunately, during its short existence,
6 this is of this document, pro-nuclear groups used it as
7 a justification for promoting nuclear energy, since it
8 was "shown to be so safe." It was so important that the
9 Wall Street Journal, the Washington Post and others
10 printed summaries of it. Were there any retractions?

11 AECB must be distinctly separated from
12 AECL with both organizations reporting to different
13 super ministers. The interchanging of personnel, as
14 practiced in the past, must not continue. Better yet,
15 the Ontario Select Committee recommended the
16 establishment of a Nuclear Fuel Waste Management Agency.
17 If such an agency could find a more acceptable solution
18 after considering many options, the management option
19 decided upon would be more credible. Research in waste
20 management controlled by AECL is unacceptable since the
21 organization presently has such a vested interest.

22 Dr. K. Hare. In 1977, the Federal
23 Department of Energy, Mines and Resources published
24 report #EP77-6, which was Chaired by A.M. Aiken, J.M.
25 Harrison and F.K. Hare, the Chairman, and which has been



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1 called the Hare Report. This report studied, in less
2 than four months, what was known about nuclear waste
3 disposal and came up with a recommendation that a site
4 in Northern Ontario which had a suitable igneous pluton
5 should become the nuclear waste dump - for interim
6 storage, reprocessing to recover plutonium,
7 immobilization, and then permanent disposal. This
8 recommendation was made by a so-called "independent
9 expert group." In this group was A.M. Aiken, who was,
10 until a few weeks prior to his appointment to the study
11 group, Vice-President of AECL, J.M. Harrison, a former
12 Senior Assistant Deputy Minister in Energy, Mines and
13 Resources, the department responsible for nuclear
14 energy, and K. Hare, a professor in Environmental
15 Studies at the University of Toronto, who described
16 himself as having no previous expertise or skill in this
17 field. How independent or how much could they call
18 themselves experts on the subject of nuclear waste
19 disposal? They just put their brains together,
20 eliminated all sorts of options, and politically decided
21 to choose a Northern Ontario option. That was done
22 because we're so sparsely settled up here, fewer votes,
23 et cetera, et cetera. We in Northern Ontario think it's
24 now a hairy situation for us so this report should have
25 probably been called the "hair-brained" report.



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1 The comments of Professor John Cherry of
2 the University of Waterloo on this report are
3 enlightening.

4 "I would like to comment on the Hare
5 report which I think is an embarrassment to the Canadian
6 Scientific Community. The report was done in a very
7 short period of time and the recommendations that came
8 out of it could not be taken as having been appropriate
9 in light of the length of time that that investigation
10 was made. It's full of numerous technical areas related
11 to the hydrogeological side of things and one would say
12 that it's not a report for the public to put any
13 confidence in."

14 And, unfortunately, your editorial writer
15 in the paper last week thinks it's a marvelous report.

16 The pro-nuclear forces are continually
17 touting the Hare Report when they should not be if what
18 Dr. Cherry says is true.

19 Now, here's the list of our concerns about
20 nuclear waste. Reprocessing should not be contemplated.
21 Liquid radioactive waste is a nightmare wherever it is
22 found in the world. I'm sorry, I'm missing a few lines
23 at the top here, but number two should be that the
24 storage in pools at the reactor sites has worked, been
25 found safe and no transportation is required. It's only



1 drawback would be the expense of caring for it and
2 monitoring it, which should be our responsibility since
3 we produced it. It should not be left to future
4 generations.

5 Number three, the number of "storage
6 pools" should be limited. This would mean that the
7 expansion of nuclear power should be stopped and
8 research and development money given presently to the
9 nuclear waste programs should be given to a safer
10 alternative energy source.

11 Four, research into high-level nuclear
12 waste management should be started again under the
13 guidance of a really independent scientific body, one in
14 which the public can have a bit of faith.

15 Number five, the decision making process
16 should truly be democratic. In the federal low-level
17 nuclear waste siting procedure, several opportunities
18 exist to opt out of the process as well as provisions
19 for a final binding referendum. A similar process
20 should be established for high-level nuclear waste.

21 Six, affected communities (whoever's
22 concerned) should have information provided by both
23 sides of the nuclear waste issue. No more one-sided
24 public relations experts to whom we in Atikokan have
25 been exposed.



1 Now, I'd like to then go to the questions
2 based on the recommendations of the Porter Commission
3 and the final report of the Ontario Select Committee on
4 Hydro Affairs.

5 THE CHAIRMAN: Mr. Miyata, I've hesitated
6 to mention time. You're somewhat over the original
7 time, but if you've just got a summation now, if you
8 could make it fairly brief, I think I can defer those
9 who want to ask questions.

10 MR. MIYATA: Okay. Could I make about
11 four questions based on what I was just going to say and
12 that would be my conclusion?

13 THE CHAIRMAN: Fine.

14 MR. MIYATA: According to the Royal
15 Commission, the progress in the high-level nuclear waste
16 disposal research and development, in both the technical
17 sense and the social sense, is not satisfactory by 1990,
18 as judged by officials and the people of Ontario,
19 especially in those communities that would be directly
20 affected. A moratorium should be declared on additional
21 nuclear power stations.

22 The government of Canada should ensure the
23 separation of the promotional and regulatory aspects of
24 nuclear power by drafting appropriate legislation to
25 replace the Atomic Energy Control Act as a matter of the



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1 highest priority.

2 The distinct separation of AECB and AECL
3 is necessary, thereby avoiding public confusion and
4 possible conflicts of interest of the sort that have in
5 the past strained public confidence in the regulatory
6 process.

7 My question is, what legislated changes
8 have been made to separate AECB and AECL so that AECB
9 itself realizes it is the regulatory and not the
10 promoter?

11 This is the Royal Commission, 12.2.
12 Ontario Hydro should ensure that the participants in the
13 utilities participation programs have access and
14 independent expertise, whether the expertise is
15 supportive or opposed to Ontario Hydro's planning
16 concepts.

17 Now, they're going through this 20 year
18 hearing plan. We asked for funding and we were turned
19 down because we did not have much in the way of legal
20 aid. Instead of us representing ourselves they wanted
21 lawyers to do that for us.

22 The final report from the Ontario Select
23 Committee, the Government of Ontario, should cease its
24 obstruction of proposals to investigate available soft
25 rocks in the field, and should instead encourage all



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1 appropriate field research. Question, has AECL been
2 asked to look at soft rock research and what per cent of
3 their research funds have been directed towards it?
4 Because if the Ontario Legislative Committee recommended
5 this, then it should have some say, some meaning.

6 The selection of disposal sites should
7 include - this is FR in my brief, the last page, FR
8 VIII - the selection of disposal site should include
9 those people that feel affected by the decision. I
10 think someone made a comment about who should do some of
11 these. These people should have the right to express
12 points of view to an independent decision making body
13 responsible for protecting public health and safety.

14 Thank you very much for your time, sir.

15 THE CHAIRMAN: Thank you, Mr. Miyata. I'm
16 sure you yourself recognize that a good deal of the
17 comment which you have made and some of the history is
18 related to matters which are well beyond the mandate
19 which this Panel, correctly or otherwise, has been
20 given, and we must take that into account, of course,
21 and it certainly is not possible for me or I think other
22 members of the Panel to comment on some of the history
23 which we have not experienced.

24 I would, however, just want to clarify one
25 or two points with respect to the Panel and what it's



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1 expected to do and to make it very clear that at this
2 particular stage, which is an early stage in our
3 activity, we are attempting to identify those important
4 issues which must be covered in an Environmental Impact
5 Statement still to be prepared by Atomic Energy of
6 Canada Ltd., and while we have already a number of ideas
7 of what should go into that Environmental Impact
8 Statement, we will be getting additional ideas, I know
9 from our Scientific Review Group. I think it is more
10 likely to widen the list rather than to narrow it, and
11 we are - I can assure you without any hesitation -
12 acquiring, as a result of the hearings, even the
13 hearings that we've had -- the meetings we've had so
14 far, the scoping meetings, a number of other additional
15 ideas which we'll want to consider for matters to be
16 addressed within the Environmental Impact Statement.

17 All this is to say, that I think it is
18 important that before AECL is charged with writing that
19 paper, it is incumbent upon all of us, and the Panel is
20 merely serving as a vehicle for this way, to ensure that
21 we have covered the subject as comprehensively as
22 possible.

23 It is at a much later stage, after that
24 has been written, and it has been written
25 satisfactorily, of course, that the substantive



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1 questions will have to be addressed. But I think it is
2 important to make the point that, at least in my view,
3 and, I believe that of my colleagues on the Panel, we
4 need to have from a number of sources, the best possible
5 identification of the issues, so that they are handled
6 well when -- as well as can be expected, as well as we
7 can make them be handled by the proponent.

8 As for the purposes of the Panel, I can
9 only say that no single one of us here would have agreed
10 to serve on it if we thought that this was not a real
11 operation, and one which will allow us, I hope, to have
12 and have on behalf of the Canadian public some influence
13 on the decisions which are made. We do not have the
14 decision making power. We have the power to recommend,
15 but I feel that if our work is done carefully and
16 thoughtfully, and with the full participation of
17 interested people of the country, there's a strong
18 chance that good recommendations will have to be heeded.
19 We'll do our best anyway in that regard, and that I can
20 assure you.

21 Are there any questions of clarification
22 which anyone would like to put to Mr. Miyata with
23 respect to his presentation this afternoon?

24 THE CHAIRMAN: Mr. Van Vliet.

25 MR. VAN VLIET: Mr. Miyata, apart from the



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1 long history you've given, the relationship between your
2 group and the AECL and the AECSB, what, for the
3 clarification of the Panel, is the most important
4 concern to you with respect to the disposal concept, and
5 secondly, which is, in your opinion, the most important
6 recommendation? Which has the highest priority?

7 MR. MIYATA: With regard to the first
8 question, I think as far as the nuclear waste research
9 is concerned, the biggest concern I have is that it was
10 decided politically, and many of the options were turned
11 down. The shale in Southern Ontario, the rock
12 formations -- sorry, the salt formations, clay deposits,
13 all these were eliminated politically by Dr. Hare as far
14 as I can understand from reading his work, which was
15 very, very difficult for us to get ahold of. A lot of
16 this information was extremely difficult for us to find.

17 As far as the research is concerned, to
18 me, research should have been done, and we argued this
19 in our petition, by unbiased people without vested
20 interests in finding a result which may turn out to be
21 favourable to them. It should have been done by an
22 independent body, not AECL. They have the waste, they
23 have to get rid of it and yet they say we want to
24 control the research.

25 The most important thing to me, as far as



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1 I can see with this whole process, is that there is a
2 proven safe technology in the pools on the reactor
3 sites. Unfortunately, it's going to be expensive to
4 maintain it. Someone also talked about security. I'm
5 sure if the Iraqis were really serious they could have
6 gone into nuclear power plants here and taken over. So
7 the power plants themselves are very vulnerable, let
8 alone waste sites. So to me safety is the most
9 important. And as far as I understand, if we can't
10 handle it after all the research which has been done on
11 the world scale to try and handle this, because it's
12 such a long term disposal problem, if you want to try
13 and dispose of it, then nuclear energy should be put on
14 hold for a while until we can find if there is any other
15 alternative.

16 Now, I'd like to make one comment. We in
17 Northern Ontario, fortunately when I say we, it didn't
18 affect me. But in the 50's liquid mercury was thought
19 to be safe. Scientists thought it was extremely inert,
20 no damage to anything, therefore the scientists said so,
21 the government accepted, industry dumped it. So in
22 Dryden then at a chloralkalide plant liquid mercury was
23 dumped into the river because that was the cheapest way
24 to get rid of it. They didn't want to try to recover
25 it. Well, the scientists didn't realize, except someone



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1 in Norway, I believe, found out that the mercury which
2 was "safe" became changed into a harmful type which went
3 into the fish, and maybe the governments say "gee we're
4 lucky, only a small group of people were affected, White
5 Dog and Grassy Narrows and some of the tourists along
6 the English Wabigoon River system." But a safe
7 technology is something which we cannot look into all
8 the aspects of it, and to say something is safe is
9 something I question. To put into the ground and walk
10 away from it is not my idea of how you should be
11 responsible for your actions. So it should be some
12 place where you could be watching it. If something goes
13 wrong you should be able to fix it. It may be
14 expensive, but that's the price maybe we have to pay and
15 this electricity, therefore, may not be so cheap as we
16 think it is.

17 THE CHAIRMAN: Thank you very much indeed,
18 Mr. Miyata.

19 MR. MIYATA: Thank you.

20 ---Mr. Miyata withdraws

21 THE CHAIRMAN: Are there any other people
22 present this afternoon who would like to make
23 presentations to this group? If not it -- yes.

24 MS. GERNAT: I don't have a formal
25 presentation made up but I'd like to make a couple of



1 comments.

2 THE CHAIRMAN: Please come to a microphone
3 so that we're sure we can hear and you could just give
4 your name so that we'll know whom we're recording.

5 PRESENTATION BY MS. GERNAT:

6 My name is Olga Gernat and my husband and
7 I were involved with the study done at Upsala, Ontario.
8 We were not residents of Upsala, but we're property
9 owners there, and that process went through the winter
10 and the final voting of it was done early or late this
11 spring and we were quite surprised to hear that as soon
12 as the low radioactive study was done, all of a sudden
13 we hear that there is a group coming through looking for
14 a high radioactive site, and the reason it boggled our
15 mind, is we understand that the process that was used
16 started off with sending out in the neighborhood of
17 about 500 letters to various locations across Canada and
18 of those 500 approaches, I believe at this particular
19 point in time, there are two locations that are
20 proceeding through Phase IV of the siting process.

21 So I guess my question is, if
22 approximately 498 locations turned down the low
23 radioactive sites, then who's going to be interested in
24 the high radioactive site?

25 I'm not extremely knowledgeable and so I



1 don't have a formal presentation here, but I thought it
2 might be interesting to the Panel to have a reaction to
3 how we felt about the process and why the process
4 probably was stalled at the point that it was.

5 Most places turned the process or stopped
6 the process at the end of Phase III. Now in order to
7 proceed into Phase IV, we were asked to allow
8 exploration to be done and in Phase IV we were going to
9 also be negotiating a compensation package if we decided
10 to proceed through to Phase V, and basically Phase V was
11 putting the pen to the paper. So, in other words, Phase
12 IV was everything. It seemed that that was going to be
13 where all of the decisions were going to be made, but I
14 think most of the people in the community felt that if
15 they took the vote to go to Phase IV that we really
16 would lose control.

17 There were going to be millions of dollars
18 that were going to be spent on exploration, and the word
19 that kept being associated with exploration was
20 expropriation. How can a community be told that it can
21 say no after millions of dollars have been spent here
22 when it's for the common good that this waste be
23 deposited there? So I guess overall the feeling was
24 mistrust of government, mistrust of the intentions.

25 If you're looking at the siting process



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1 then I might recommend that Phase IV perhaps be broken
2 down into one or two additional stages where perhaps the
3 community might like to discuss the benefits and
4 compensations that they would like, and then a decision
5 be made to go ahead with the exploration and then the
6 final decision as to whether or not they would accept
7 it. It just seemed too big of a bullet to bite at that
8 particular time.

9 Psychologically both my husband and I felt
10 very, I suppose offended, when you took a look at the
11 site criteria. Right up there among the top three
12 criteria was, it should be in a sparsely populated area.
13 Well, I feel that my body is just as valuable if it's
14 associated with a thousand people in Thunder Bay as it
15 is with a few million people in Toronto. So that kind
16 of got our backs up to begin with. So perhaps we
17 weren't as receptive as we could be.

18 Secondly, you keep hearing -- I think
19 every person who spoke today said that they didn't want
20 the waste without any benefits, and maybe what should be
21 happening is a rethinking of the cost efficiency
22 process. I'm sure that when the reactors were built
23 they were built in the heavily populated areas because
24 that was the most cost efficient place to build them.
25 But today when you're looking for means of disposing,



1 that cost has certainly gone up a tremendous amount.

2 Now perhaps if there's going to be
3 expansion, what should be given consideration is putting
4 the sites in Northern Ontario where its going to be a
5 boost to the economy, it's going to give us jobs and
6 yes, we will take the garbage that comes with it. It
7 can't be any more expensive to produce it there and ship
8 the garbage out than it is to produce it here and ship
9 the energy back. So perhaps there has to be a bit of
10 rethinking in that area.

11 I think the process as a whole, the theme
12 or the title Opting for Co-operation, was a good one.
13 We certainly enjoyed our participation in the process in
14 Upsala, but I will support what all of the other people
15 have said here, that the publicity on these hearings has
16 been nil. My husband and I came to the open house and I
17 believe - I don't know what the exact figures were - but
18 I believe between the afternoon open house and the
19 evening open house which we attended, there may have
20 been 20 people who passed through.

21 Now we found out about the open house by
22 reading a very remote column in a weekly paper. We
23 didn't even see it in our local Thunder Bay paper. Now
24 whether we just missed it -- but I do question the
25 amount of advertising that has been done and the



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1 encouragement given to the local population to take
2 part.

3 I think if that is handled well in the
4 beginning I think people will react in a more positive
5 manner, and I don't have anything further really.

6 THE CHAIRMAN: Thank you, Mrs. Gernat.
7 You're appreciated. I know that we are not, in this
8 Panel, looking for a specific site for high-level waste
9 disposal. That is the concept which we're looking at
10 now, but one of the things which we are certainly --
11 will certainly be attempting is to establish some
12 criteria, some methodology for the site selection and
13 certainly your comments about the good and bad points of
14 the site selection process in another example are things
15 which we will take account of. Thank you very much.

16 Are there any questions which anyone
17 wishes to put to Mrs. Gernat?

18 Thank you very much indeed for appearing
19 before us.

20 ---Ms. Gernat withdraws

21 THE CHAIRMAN: Are there other people
22 present who would like to offer their thoughts and
23 suggestions? If not I will draw this present afternoon
24 session to a close with my most sincere thanks to the
25 members of the Panel and for all those who have



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1 participated and those who have been present to listen
2 to the presentations and the answers.

3 We will be continuing our session in
4 Thunder Bay this evening beginning at 7 o'clock in this
5 same place. Thank you very much.

6 ---Recess taken at 4:15 p.m.

7 ---On resuming at 7:00 p.m.

8 THE CHAIRMAN: I'd like to get started
9 now, if you'd like to come in and take a chair, and I
10 first of all welcome you to this evening session of the
11 scoping meeting in Thunder Bay of the Environmental
12 Assessment Panel which is to review the Nuclear Fuel
13 Waste Management and Disposal Concept.

14 The other members of the Panel who are
15 with me, and unfortunately two are ill and cannot be
16 here today, but I have on my right, Dr. Lois Wilson,
17 from Toronto, who is President of the World Council of
18 Churches and Co-Director of the Ecumenical Forum of
19 Canada. On my immediate left, Dr. Lionel Reese, from
20 London, Ontario, physician at St. Joseph's Hospital
21 there and Professor in the Departments of Diagnostic
22 Radiology and Nuclear Medicine of the University of
23 Western Ontario, and to his left again, Mr. Pieter Van
24 Vliet, Mechanical Engineer, comes from Regina, and is a
25 member of the Senate of the University of Regina. My



1 name is Blair Seaborn, I'm Chairman of the Panel. I
2 resides in Ottawa.

3 All of us, as you may have gathered from
4 the indication of our origins are private sector people.
5 We are not working for the government other than
6 agreeing to serve on this particular Panel, which will
7 report at the end of this long process to the Minister
8 of The Environment and the Minister of Energy, Mines and
9 Resources.

10 The review is being conducted in
11 accordance with the federal Environmental Assessment and
12 Review Process, E-A-R-P or EARP.

13 The Panel has been asked, in part, to
14 examine the nuclear fuel waste management and disposal
15 concept, which is a proposal for permanent disposal of
16 used nuclear fuel deep in the granitic rock of the
17 Canadian Shield.

18 I'd like to say a few words about the
19 Panel's mandate. The terms of reference we have
20 received state that the Panel is to review the safety
21 and acceptability of the concept for geological disposal
22 of nuclear fuel wastes in Canada, as has been proposed
23 by Atomic Energy of Canada Ltd., and, in addition to the
24 AECL proposal, we shall examine a broad range of nuclear
25 fuel waste management issues, including long-term.



1 management, transport, environmental, social and
2 economic effects. We shall look at approaches for
3 nuclear fuel waste disposal being developed elsewhere in
4 the world. Since site selection will not occur until a
5 disposal concept has been accepted as safe, the Panel
6 will not consider any specific sites, but it will review
7 the potential availability of sites and the methodology
8 and the criteria required for site selection.

9 Let me say a word or two also about what
10 is not in our mandate, and will therefore not be
11 addressed in our review. The energy policies of Canada
12 and the provinces, the role of nuclear energy within
13 these policies, including the construction, operation
14 and safety of new or existing nuclear power plants, fuel
15 reprocessing as an energy policy and the military
16 applications of nuclear technology.

17 I'd like to make it clear, however, that
18 the Panel members are very much aware of the broader
19 concerns related to the use of nuclear materials and the
20 use of nuclear power for the generation of electricity.
21 We have been urging a broader review of the comparative
22 environmental implications of the various methods of
23 generating electricity. I understand that steps have
24 now been taken to get such a review underway. I hope
25 that it will be started in the fairly near future.



1 The purpose of these scoping meetings is
2 to allow participants to identify issues that need to be
3 addressed in the Environmental Impact Statement to be
4 prepared by AECL. The Panel is not requesting the
5 presentation of opinions on the substance of the
6 disposal concept at this time. Public hearings will be
7 held later to discuss whether AECL's proposal is
8 acceptable.

9 Following this present series of meetings,
10 of scoping meetings, the Panel will prepare draft
11 guidelines for the preparation of the Environmental
12 Impact Statement and there will be opportunity for
13 public comment on the draft. Once the Panel is
14 satisfied that AECL has addressed satisfactorily all the
15 items identified in the guidelines, and, I should hasten
16 to add that the preparation of that Environmental Impact
17 Statement may take a year to a year and a half by AECL.
18 Once those have all been identified, and once we are
19 satisfied that they've been addressed satisfactorily,
20 the report will be made public, the EIS will be -- the
21 Impact Statement will be made public and we will hold
22 public hearings to get the comments of the interested
23 public on the substance of the proposal. We will want
24 to know what you think and many others across the
25 country on its acceptability at that stage of the



1 review.

2 We will take into account both as we are
3 doing now for the preparation of the guidelines, and
4 later on when we're examining the substance of the
5 concept, we will take into account, and very carefully,
6 all comments submitted to it, and we'll have them in
7 mind as we prepare our report to the two ministers.

8 Could I, just for the sake of clarity and
9 fairness, tonight ask that those registered to speak
10 attempt to summarize their concerns in 15 minutes unless
11 they have previously requested an additional 10 minutes.
12 The Panel will pay equal attention to written and or
13 oral statements.

14 We would also like, on occasion, to put
15 questions to the participants if we need a little
16 clarification as a result of the presentation that
17 you've made.

18 Anyone who would like to make a
19 presentation to the Panel but has not yet registered may
20 certainly do so by speaking either to Ms. Toller or Mr.
21 Greyell, and we'll be glad to accommodate you within the
22 limits of the time available to us this evening.

23 We will also be more than pleased to
24 accept written issues identifying these issues of
25 importance for the guidelines up to and including



1 November 30th
2 1990.

3 With that introduction to explain, I hope,
4 with some clearness our method of operation, I would
5 like now to call upon the first of those who have asked
6 to speak this evening, and that is the Atikokan Citizens
7 for Nuclear Responsibility, and I'm sorry, I did not
8 catch the name of the person who is going to be speaking
9 on behalf of that group, or persons.

10 PRESENTATION BY MR. PRINGLE:

11 Good evening everyone. My name is John
12 Pringle and I'm speaking on behalf of the Atikokan
13 Citizens for Nuclear Responsibility.

14 I'd like to welcome the Panel here
15 tonight, even though we feel you're about 12 years late.
16 We're still happy to see you.

17 Before I start I'd like to just digress
18 for a second and bring it to everyone's attention how
19 the media covered this afternoon's presentations. On
20 the 5 o'clock news, Mike Bryan from Environment North
21 was quoted totally out of context. He gave a
22 presentation today wherein he said, "the proverbial
23 carrot dangled in front of an economically depressed
24 town like Atikokan was unethical" and a news media took
25 that quotation and construed a story that because of



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1 recent forest closures Atikokan was now willing and
2 eager to accept nuclear waste. I find that type of
3 media coverage irresponsible and inaccurate, and I hope
4 that that is clarified.

5 I'm going to give a brief introduction
6 about our group and list about six conclusions that we
7 have come to regarding this question.

8 From 1978 to the present, Atikokan has
9 played an important role in research pertaining to the
10 underground disposal of high-level nuclear waste. North
11 of the community test drilling was carried out
12 throughout the 1980s and AECL's presence is still felt
13 to this day.

14 During the past year the community was
15 actively involved in Phase III of the Siting Task
16 Force's mandate for the disposal of low-level nuclear
17 waste. In both cases, Atikokan Town Council invited the
18 nuclear industry into the community without any public
19 consultation. In both cases local citizens became
20 reluctant participants in very controversial problem.

21 The Atikokan Citizens for Nuclear
22 Responsibility was formed in May of 1979 to help inform
23 the public on all issues relating to nuclear waste. A
24 petition with 1,680 signatures was presented to Town
25 Council the same year, requesting public hearings and a



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1 referendum before AECL commenced any test drilling.

2 This petition was ignored.

3 In March of 1990, a second petition urged
4 Town Council to terminate all involvement with the
5 nuclear industry regarding low-level waste. 65 per cent
6 of the eligible voters in Atikokan signed this petition.
7 More people signed that petition than the number of
8 people who voted in our last municipal election.

9 At the same time the community liaison
10 group recommended that Atikokan terminate all further
11 involvement with the Siting Task Force. This time Town
12 Council responded and declared Atikokan to be a nuclear
13 free zone.

14 Now over the last 12 years or so our
15 community has had the unique opportunity to listen to
16 and learn from some of the best experts on this field in
17 the world, both for and against. We've had speakers in
18 1979, 1981, 1989 and 1990. As well as attending those
19 presentations, a number of us have done a lot of
20 reading, a lot of research, written a lot of letters,
21 talked to a lot of authorities, and as a result we feel
22 we have become fairly well informed on this issue and
23 before these hearings we agreed on the following
24 conclusions:

25 One, the exploitation of nuclear energy is



1 fundamentally wrong. It's a dangerous mistake.

2 Two, the concept of underground disposal
3 is wrong. It is a shortsighted, risky, weak solution
4 conceived under pressure to save face and to justify
5 nuclear expansion.

6 Three, surface management using the best
7 technology, barring no expense is the only feasible
8 responsible solution at this time.

9 Four - and I think this is most
10 important - no long range management plan should be made
11 until nuclear expansion stops. The problem must be
12 addressed at its source. Any attempt at long-term
13 management before expansion is stopped would only serve
14 to perpetuate the problem.

15 Five, the research done to date is
16 seriously flawed because of it's narrowed scope and
17 funding restrictions.

18 Six, the solution to provide energy for
19 Canadians is through the promotion and implementation of
20 energy efficiency. Conservation and alternative,
21 environmentally sound sources that are sustainable.

22 Before I conclude, I'd like to make one
23 point, and that is how important what we are doing here
24 tonight is. How important you people are because you're
25 judgment could have consequences far into the future.



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1 My grandchildren might know your names, and I hope that
2 you -- I sincerely hope that you keep that with you at
3 all times during these hearings.

4 With these conclusions kept in mind, we
5 would like to voice our opposition to the concept of
6 underground disposal in the following order; first the
7 question of scientific acceptability which will be
8 addressed by Margaret Wanlin, and secondly, the subject
9 of ethical concerns and getting the public's trust, with
10 John Stradiotto.

11 MS. WANLIN: I'd like to raise seven
12 questions around the area of the science of nuclear
13 waste disposal. The first is around the question,
14 should we really be looking at a question of disposal,
15 or should we be looking at a question of retrievable
16 storage? We prefer to see it as a retrievable storage
17 issue rather than one of disposal. If the waste is
18 stored, then it must be regularly monitored and it can
19 be retrieved if that becomes necessary. Its actions and
20 the changes that it makes, as well as the impact that it
21 has on the containment vessel, can be observed and any
22 changes can immediately be made to the program. As
23 well, if new approaches are developed, and we think that
24 it's probably likely that there will be advances in the
25 science, then this method of dealing with the waste can



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1 make best use of those new advances.

2 Second issue is, how can public attention
3 needed to support good science be sustained for the
4 length of time that is going to be necessary? It would
5 be very difficult to keep a quality maintenance program
6 if the waste is buried apparently permanently. Because
7 it is out of sight it will be very easy for it also to
8 become out of mind, out of the political mind and out of
9 the public mind. And because of that, scientists will
10 have a very difficult time attracting the very necessary
11 funds to monitor that waste for the long-term and of
12 course we are talking about the long-term being 240,000
13 years.

14 The third point is around the scope of the
15 research, and the question of why that scope has been
16 narrowed. AECL had originally planned to test a variety
17 of rock types for their suitability for long-term
18 storage. The plans in the early 80s called for doing
19 research in broken and unbroken granite, syenite,
20 anorthosite and gabbro. In other words, eight different
21 types of research. In 1980, in Atikokan, Alex Mayman,
22 who is an AECL engineer said, "We could stop the
23 research after granite but that would not be politically
24 acceptable. I would be prepared to say at least two
25 probably three and maybe up to six, but I'd say at least



1 two and very likely three rock types." The AECL
2 research has been narrowed considerably since that time
3 down to two rock types and Mayman is right, it's not
4 politically acceptable, and we also question the
5 scientific soundness of that approach.

6 The fourth issue is, how can scientists
7 adequately predict subterranean conditions? Granitic
8 plutons are not pure and crack free. The assumption is
9 made that they are, and that, therefore, ground water
10 cannot flow through the containment area. But, for
11 example, at Cameron Lake, which is North of Fort
12 Frances, research scientists found gold where they
13 didn't expect to find gold or any other type of
14 mineralization, which suggests that their ability to
15 predict is not perfect. As well, cracks have been found
16 in granitic plutons far below the earth's surface much
17 to the surprise of research scientists.

18 In a book entitled "Stress on the Land,"
19 which is a 1983 Environment Canada publication, it's
20 indicated that, and I quote, "a disposal site is
21 intended to be developed in the Canadian Shield in
22 Ontario to accommodate all high-level waste to be
23 produced up to the year 2050." I ask you, who made that
24 decision? It goes on to state that, "Sites with
25 sufficiently slow ground water movement so that



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1 -radioactive releases will be acceptably low are
2 anticipated to be found." Ladies and gentlemen, we
3 believe that too low a standard is being set here.

4 The fifth issue is how can we know that
5 conditions will not change, subterranean conditions?
6 It's impossible to predict that subterranean burial will
7 be safe for 700 years. 700 years is the point at which
8 the waste will be of an equivalent radiation level to
9 naturally occurring uranium. It does not seem to be
10 possible that human beings can make predictions about
11 nuclear waste storage for that amount of time.

12 Isostatic rebound, which is the process of
13 the gradual rising of the land mass, is now occurring in
14 Ontario and it's but one of the forces that makes that
15 kind of prediction impossible.

16 The mid-continent of North America is not
17 as stable as might be assumed. For example, an
18 earthquake occurred in the Souix Lookout area, which is
19 northwest of here in the early 1980s, and even closer in
20 terms of time, in October of this year, an earthquake
21 that measured 5.5 on the Richter Scale occurred in
22 Canadian Shield country, 115 kilometers north of
23 Atikokan. Who's to say when more such earthquakes might
24 occur in an area where nuclear waste could be located.

25 According to the Porter Commission Report,



1 page 69, after 700 years the uranium or the remaining
2 radioactivity left in the waste is about the same as
3 that of uranium and thorium deposits on earth. It goes
4 on to say that, and I quote, "clearly the basic
5 requirement is to ensure that radioactive material is
6 not allowed to penetrate into the biosphere through
7 ground water movements, glacial actions or glacial
8 accidents." The difficulty and importance of ensuring
9 that type of protection cannot be overestimated.

10 In fact in a 1981 report from the
11 Environmental Protection Agency in the United States,
12 they say, and I quote, "at the present time it is not
13 technologically or institutionally possible to contain
14 wastes forever or for the long time periods that may be
15 necessary to allow adequate degradation to be achieved.
16 Consequently the regulation of hazardous waste land
17 disposal must proceed from the assumption that migration
18 of hazardous waste and their by-products from a land
19 disposal facility will inevitably occur."

20 In a paper by William T. Hancox, the
21 Vice-President of Waste Management for AECL, the
22 research company has stated that they can keep nuclear
23 wastes in containers with outer shelves of titanium and
24 copper isolated from ground water for at least 500
25 years, but 500 years is not good enough because the



1 absolute minimum for containment is 700 years.

2 The sixth issue is around transportation
3 cost and the safety risk involved in that. Why is that
4 necessary? While the quantities of high-level waste to
5 be transported and considered in this case will never be
6 large in volume, clearly they are extremely toxic.

7 The U.S. geological survey has pointed out
8 in geological disposal of high-level of radioactive
9 waste, that there isn't enough fresh water in the world
10 to dissolve these wastes to acceptable levels of
11 concentration. There are safety and cost implications
12 of transporting the materials for long distance. These
13 risks are really unnecessary because the waste could be
14 stored and monitored near where it is generated, as is
15 the present practice.

16 And the seventh and final issue is, is it
17 time for us to meet the Porter Commission imperative?
18 This is probably the most important point. It's to say
19 that the problem of dealing with nuclear waste should be
20 minimized by bringing to zero the growth rate of
21 producing additional waste from nuclear power
22 production.

23 The Porter Commission spoke convincingly
24 about this in conclusions and recommendations with
25 respect to the management and disposal of spent fuel.



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1 On page 72, 5.17, they say, and I quote, "if the
2 progress in high-level nuclear waste disposal and
3 development in both the technical sense and the social
4 sense is not satisfactory by at least 1990, as judged by
5 the technical and social advisory committees, the
6 province and federal regulatory agencies and the people
7 of Ontario, especially in those communities that would
8 be directly affected by nuclear waste disposal, a
9 moratorium should be declared on additional nuclear power
10 stations.

11 Clearly, ladies and gentlemen, those
12 conditions have not been met, and it seems, therefore,
13 that it is incumbent on your committee and all others
14 working in this area to declare it.

15 MR. STRADIOTTO: Thank you for the
16 opportunity to speak Panel. My message to you basically
17 is that ethical concerns are a necessary part of gaining
18 public trust for waste disposal solutions. For the man
19 or woman in the street, many of these scientific issues
20 are so complex that often they come down to a matter of
21 trust.

22 So my first question is, why should the
23 public trust the nuclear industry? How are you going to
24 get people to trust the industry, considering what's
25 happened in the past? Is not the willingness of the



1 nuclear industry to produce waste before knowing how to
2 handle it simply unethical in and of itself? Why should
3 the public trust solutions offered by an industry that
4 for years knowingly produced highly toxic waste before
5 establishing environmentally proven waste disposal
6 solutions? That's a big hurdle. How does the public
7 trust an industry that operates without adequate public
8 liability insurance coverage around nuclear stations or
9 adequate representation and the MESA laws for Ontario
10 and all these other exceptions to their protections?
11 How on earth do people trust you? You will have to bear
12 with me. I'm quite ill actually, but I really wanted to
13 be here.

14 Are waste disposal solutions motivated by
15 desperation or good science? This is my second
16 question. Are current deep burial options real
17 solutions or a desperate attempt to gain public
18 confidence for ongoing nuclear expansion? It sounds
19 skeptical, but is disposal the issue or is expansion the
20 issue? The public has a hard time ethically, trying to
21 decide what's happening here.

22 How do we know that the industry really
23 knows enough to proceed with waste disposal at this
24 time? I mean there are many historical examples of
25 scientifically declared solutions that are later found



1 to be environmentally unsound. We know about the space
2 shuttle. That was supposed to be a show piece when it
3 blew up. We've arrived at the solution to research in
4 space and it didn't work.

5 Is Northern Ontario's environment really
6 going to be part of a radioactive waste experiment? Why
7 should northerners have any obligation to be part of
8 this experiment? I mean the people that live by the
9 English Wabigoon River were told at one time that
10 mercury was inert, and now what do we know years later?
11 This is part of the northern experience.

12 The pressure of growing amounts of waste
13 is not a moral or a scientific reason to rush into
14 unproven solutions. Scientists today hold various
15 opinions on the option of burial at this time. Some
16 scientists believe deep burial to be okay, others see it
17 as a premature unproven strategy with little option for
18 future retrievability. I remember last year watching
19 CBC news give a quick brief description of some research
20 in Japan on shortening half lives. We don't hear of any
21 of that research here. Is that possible? When we had
22 the low-level waste hearings in Atikokan, one
23 representative of the industry who was on "their side"
24 said don't tell anyone else, but this is my personal
25 opinion and I believe in not putting the stuff in the



1 ground, but he wouldn't go in public in any way to say
2 this. Now I'm not saying this to cast dispersion, so
3 much as saying it for the person to judge who to believe
4 and who to trust it's very difficult. That's the point
5 I'm making here.

6 How can we be sure of having the best
7 possible solutions put forward to the public when some
8 of our capable scientists in Canada refuse to
9 participate in disposal of solutions until the
10 productions of waste from nuclear plants is phased out.
11 Do we have the best possible solution without everybody
12 playing in the game?

13 My third point is that can nuclear waste
14 disposal issues be isolated from waste production issue?
15 I know your mandate has limits. I'm going to tread on a
16 grey area here according to your mandate, but waste
17 disposal issues and production issues are part and
18 parcel of the same moral problem. Technically, disposal
19 may be quite convenient to put in this package or that
20 package, but the production of waste is part of the same
21 overall problem.

22 Do we really not need to see a cradle to
23 grave analysis of the problem, from the mining of fuel
24 to the consumption of the energy to the waste? We just
25 can't separate it morally. That's all one question in



1 our moral minds.

2 Isolating disposal hearings from waste
3 production issues obscures the real problem, or the real
4 moral question of public accountability. The public has
5 no functional means of influencing nuclear power
6 expansion today, and therefore no public control over
7 the amount of nuclear waste to be produced. Yet we're
8 both supposed to discuss disposal?

9 Is it ethical to give enormous subsidies
10 in the billions to the nuclear industry leaving unknown
11 amounts of environmental cleanup costs to the unborn?
12 Is that ethical?

13 How can the real cost of fuel be
14 established when subsidies are given in a way that the
15 public really doesn't understand?

16 What are the real detailed costs of waste
17 disposal and who will pay for these costs? Ratepayers?
18 Taxpayers? The unborn? Give us a cost, a cash flow
19 analysis of this real cost. If somebody in the paper,
20 in the Globe, said 8 to 12 billion, like there's only 4
21 billion difference there, right? But if I want a loan
22 for my small business I have to do a cash flow and
23 detail down to toothpicks, but people can just throw out
24 billions here and there when it comes to a disposal
25 solution. The public's intelligent enough to have the



1 moral dignity of seeing a real cash flow of their money
2 in the future here.

3 Do the multi billions spent in the past
4 cloud the moral judgment of politicians when considering
5 future funding of the nuclear industry? Is the real
6 moral question before the politicians, we put so much
7 money into this barrel how can we turn our backs on
8 these people? And what would these people say today if
9 the industry was just trying to start up and were
10 starting from scratch.

11 Should additional nuclear waste be
12 produced without direct public accountability? Should
13 we not be holding nuclear waste production hearings
14 prior to disposal hearings like this one? It's
15 commonplace to hear the three Rs of waste management, to
16 reduce, reuse and recycle. But these hearings have
17 almost eliminated the reduction discussion. There's no
18 credible sustained program of energy conservation that
19 is sufficiently convincing for us to say we're doing
20 every little bit we can. We still have to produce more
21 energy and we have to dispose of it because of that.

22 Should taxpayers be paying for expensive
23 national and international programs to promote nuclear
24 power expansion when the majority of Canadians disagree
25 with this scenario?



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1 How can we ever be sure that foreign
2 nuclear waste will not be accepted to help cover the
3 cost of disposing our own waste in this facility?

4 Will growing deficits make Canada an eager
5 third world type country willing to take disposal waste
6 from other countries to help pay for the cost? The
7 economy is declining in many ways in terms of deficits,
8 and prosperity is not just around the corner if we're
9 really going to face our real cost infrastructure to the
10 environment, et cetera, et cetera.

11 Why should ordinary citizens be made to
12 feel responsible for the disposal of waste when they
13 have little control over the production of waste?

14 The mere act of using electricity, does
15 that make us responsible for accepting waste locally?
16 Do we have real means of electing how the electricity we
17 will use be generated in the first place? Now I ask
18 this question because that moral question was put before
19 our Town Council when I was in attendance, and saying
20 you're poor environmentalists and morally, you know, not
21 responsible if you don't accept waste, if you turn on
22 the switch. What kind of moral argument is that if I
23 can't determine how the power is being produced?

24 How can ordinary citizens get honest
25 information and make well informed decisions on nuclear



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1 issues such as these? We all want to be thought of as
2 well informed people. What can you do, Panel, to make
3 sure that we are well informed? Who should inform us on
4 these issues? The nuclear industry only? Is all
5 relevant information that the industry has in its hand
6 being made available to the public today? And how is it
7 being made available, with difficult statistics?

8 Should the public be funding nuclear
9 promotional campaigns against their will? We have well
10 funded campaigns, yet very little going towards the sort
11 of what we call the opposition groups to really explore
12 these issues on their own. We're just everyday people.

13 Will independent scientifically qualified
14 resource people and appropriate funding be made
15 available to affected communities? Will there be a
16 voluntary process such as the low-level waste process
17 with funding being made available to us?

18 Is not impartial public information
19 ethically fundamental to gaining public trust? Isn't
20 that the basis for getting us to believe you?

21 When issue evading public relation
22 specialists are brought in to convince people, does this
23 not simply strain public confidence in the industry? We
24 had this experience with the low-level waste people.
25 We've had avoidance of valid issues, we had imbalanced



1 funding of sources of information, we had media
2 pressure, we have omissions of pertinent information.
3 That was not a good experience for us. Pro or against
4 nuclear -- it's not a good thing. I'm about to finish,
5 Mr. Chairman. I won't be too much longer.

6 Is nuclear waste disposal in the north
7 really a fair distribution of social burdens and
8 benefits when more than 95 per cent of the consumers of
9 nuclear power live in Southern Ontario. Is there any
10 valid reason why it can't be kept down there? I mean
11 our only hope for public awareness is to keep the
12 garbage in the phase that people produce it, and if they
13 consume the power down there they should keep it.

14 Is the nuclear industry attempting to take
15 advantage of small town resource dependent economies in
16 Northern Ontario with high illiteracy and unemployment
17 that can be swayed by public relation specialists?

18 The magnitude of the money, the vast
19 amounts of money involved are inherently coercive before
20 the eyes of the unemployed, the desperate unemployed,
21 and the financially aspiring business community. No
22 more or less coercive than an army is with its guns.

23 Is not volunteering the security of your
24 local environment for short-term economic gain a moral
25 violation of the concept of sustainable development?



1 Finally in conclusion, Mr. Chairman, the
2 nuclear industry world wide is a desperate industry.
3 Desperate for disposal solutions. That's why we're here
4 tonight. Ethical concerns are rarely discussed and no
5 ethical position paper has been presented to the nuclear
6 industry in Canada.

7 In the news they had an AECL spokesman say
8 last week that the ethics of the problem are simple.
9 Let's get on with the job. Are they simple, Mr.
10 Chairman?

11 Dr. Chamberlain in our low-level waste
12 group, when I spoke to a closed meeting, he spoke to us
13 and he said, "this is a scientific and technical issue.
14 Not an ethical issue." It has to be an ethical issue
15 as well. The society that we live in is mature to a
16 sufficient degree that we have to discuss this in all
17 its facets. Citizens will very likely to refuse to
18 accept nuclear waste disposal when ethical and
19 production issues are evaded in hearings such as these
20 and remain beyond public control.

21 Thank you for the opportunity to speak.

22 THE CHAIRMAN: Thank you for those three
23 facets of your presentation, those who have
24 participated.

25 We have, of course, all this recorded. I



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1 understand that you have perhaps one copy of the written
2 presentations available to the staff. If you have that,
3 I'd make the request on behalf of all my colleagues and
4 those who cannot be here tonight because we want that as
5 well as the written transcript. So we'll hope to get
6 those reproduced and in our hands fairly soon.

7 Are there any points of clarification
8 which any of the other members of the Panel would wish
9 to raise?

10 DR. WILSON: Yes, to the last speaker. I
11 guess I'm asking for a focus. I mean what one thing
12 must you know from AECL in order to satisfy your own
13 doubts about this concept? If you had one thing that
14 you wanted us to hear above all others what would it be?

15 MR. STRADIOTTO: As I said in my opening
16 statement, an ethical position paper and a discussion of
17 the ethics of this situation that would make us feel
18 that we could trust you.

19 THE CHAIRMAN: Thank you. You have
20 presented your position very clearly and I thank you for
21 that. We look forward to seeing the written version of
22 it as well. Thank you all very much.

23 ---Panel withdraws

24 THE CHAIRMAN: The second group I have
25 listed and I hope the representative is present now, the.



1 Ontario Metis and Aboriginal Association, Chris Reid.
2 Is he here? If not I hope he may be along a little
3 later. We will move on to the next person that's on my
4 list at least and there will be other opportunities to
5 come back.

6 Dick Hiner has asked to speak to the
7 group.

8 PRESENTATION BY MR. HINER:

9 Thank you for this opportunity to present
10 some concerns on the high-level nuclear waste problem
11 and how it's affected the citizens of Atikokan in the
12 past. I'll outline a few of our concerns for the future
13 and put some questions to the Panel, and if you'd like
14 to ask any questions while I'm speaking feel free to
15 interrupt.

16 First a question, and a lot of the
17 questions in the beginning here go back to the mandate
18 and what the Chairman mentioned at the beginning, how
19 narrow your mandate is.

20 In light of the fact that both the Porter
21 Commission and the Select Committee on Hydro Affairs
22 have had their recommendations for a moratorium on the
23 expansion of nuclear power ignored -- does this Panel
24 feel that it has enough authority to have its
25 conclusions implemented?



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1 The mandate to the Environmental
2 Assessment Board is to assess these things and then
3 either give a no go or go back AECL, go back and revise.
4 Would you feel -- do you have enough authority just to
5 say we think you're barking up the wrong tree, and if
6 you don't have the authority, shouldn't you ask for it?
7 Shouldn't you - I know it's not in your mandate - ask
8 for an adjustment of your mandate, but if you find that
9 the people are not satisfied with the way the problem is
10 being approached, or it's being approached obliquely or
11 something, you could go back -- I believe you could go
12 back and should go back and say, 'We believe that our
13 mandate should be adjusted to take this into
14 consideration'.

15 Ordinarily, an environmental assessment is
16 very site specific. Is it anyone's intention to use
17 these hearings as part of an environmental assessment?
18 Shouldn't the concepts involved in fuel waste management
19 be proven valid before an environmental assessment
20 begins? Is it anyone's intention to use these hearings
21 as an introduction to a "generic" environmental
22 assessment? Is the Panel giving equal weight to the
23 ideas of wet and dry surface storage or is its mandate
24 just to look at deep geological disposal?

25 I guess from your introduction that it's



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1 just deep geologic disposal, but it's rather too narrow.
2 I'm afraid you should ask for an adjustment of the
3 mandate.

4 Environmental Assessment Board has
5 assembled an impressive array of scientific and
6 technical expertise to advise you, and these technical
7 people will be able to explore the technical approaches
8 to nuclear waste management with confidence and
9 authority, but in our opinion there should be an equal
10 number of qualified scientific advisors to this Panel
11 who are skeptical of AECL's plans, and they are many,
12 and they're just as equally qualified.

13 We suggest that the advice of Norman
14 Rubin, Marvin Resnikoff, Dr. -- Sister Rosalie Bertel,
15 Dr. Gordon Edwards, Fred Knelman, Dr. Helen Caldicott
16 and other skeptical scientists be added to this
17 Scientific Review Panel and be given equal weight.

18 In our view this Panel should also be
19 informed about the social problems that may not be
20 quantifiable by just strictly technical or economic
21 values. We recommend that the Panel make every effort
22 to hear the views of sociologists, psychologists and
23 psychiatrists that are expert in the problems attendant
24 with mega projects. Their views are needed to balance a
25 purely technical cost benefit view.



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1 In 1978 the responsibilities of Ontario
2 Hydro and AECL were not so firmly divided as to which
3 arm would manage nuclear waste and which arm would
4 merely transport the wastes. At that time AECL and
5 Hydro spokespersons both came to Atikokan to sell the
6 idea of the economic benefits of being a nuclear waste
7 dump. In exchange for Atikokan's co-operation during
8 AECL's and Hydro's initial research, we were promised
9 many "meal days" and "motel nights." We were promised
10 that if our rock type proved suitable, Atikokan would be
11 in line for up to 3,000 construction jobs and untold
12 thousands more "meal days" and "motel nights."

13 During these presentations the
14 spokespersons would always mention Candu's and Hydro's
15 wonderful safety record. During one presentation like
16 that I asked, or said, "in order to maintain nuclear
17 power is safe you must ignore the deaths of the uranium
18 miners that die of lung cancer due to the inhalation of
19 radioactive particles." One spokesperson countered by
20 saying, "yes, but many of those miners smoke so it's
21 hard to tell why they have lung cancer" and he said
22 further, "that those men also tend to die toward the end
23 of their working lives and so very few man years are
24 lost."

25 Now I put it to the nuclear power



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1 supporters and promoters here among us, in order to
2 boast of safe nuclear power you must ignore the
3 premature deaths of the uranium miners in the front end
4 of the nuclear fuel cycle, and you must ignore the
5 tragedy it brings to their survivors' lives.

6 AECL can't be trusted to promote the
7 expansion of the nuclear empire while at the same time
8 be trusted to develop the safest way to manage the
9 waste. The cost of developing and operating a nuclear
10 waste management system is unknowable at this time.
11 No one can estimate the actual cost. No one can
12 accurately estimate the cost of even developing a true
13 environmental assessment after any one site becomes
14 specific.

15 AECL can't be trusted to design a safety
16 program for handling nuclear wastes if the program puts
17 nuclear expansion in economic jeopardy.

18 AECL, as a promoter of nuclear expansion,
19 was willing to bribe the Argentine colonels to buy Candu
20 over other brands of reactors. This shows that AECL is
21 willing to pay the cost of expansion even at the price
22 of their conscience and integrity.

23 AECL, as a promoter of nuclear expansion,
24 was willing to see a Candu reactor built in Romania
25 with slave labor. This also shows that AECL is the



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1 wrong institution to guide the nuclear fuel waste
2 management program in future.

3 One significant reason that AECL's local
4 credibility was damaged was their promotion of secret
5 meetings with town council. AECL insisted that the town
6 council hold secret meetings to be briefed.

7 You all have Exhibit 1, and it's a copy of
8 this original poster that AECL put on the door when it
9 became general knowledge that these meetings were being
10 held. If there were a sign outside this meeting door it
11 would keep many people out and it did and it was
12 intimidating. This is the original sign, and this is a
13 picture - you can pass it down if you want - this is the
14 picture of the sign on the town council door at the
15 night of that meeting.

16 Why should anyone believe nuclear power
17 promoters? They tell us that our communities will
18 benefit by having nuclear waste transported to or
19 through our communities and at the same time these
20 promoters are willing to write off the lives of the
21 miners and hold secret meetings in an attempt to
22 manipulate small town councillors.

23 Allow me to explain to the nuclear power
24 supporters among us what they must do if they wish to
25 regain some credibility. I warn them it won't be easy,



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1 and that anyone that comes into our communities to seek
2 approval concerning the methods of a possible location
3 in which to do nuclear fuel waste management or
4 research, they need that credibility.

5 The supporters and promoters must admit
6 that the deaths of those uranium miners are part of the
7 price we must pay to maintain the status quo. The
8 supporters must open their minds to the message that
9 people have been sending them for years. The message
10 is, the status quo isn't good enough any longer. The
11 message is, that the price of the status quo is too
12 high. The message is, you must stop trying to expand
13 your nuclear empire without safe management in hand.

14 Now in Atikokan citizens individually and
15 in groups asked that the ministers, ministries and
16 agencies responsible, hold hearings similar to these
17 hearings before research started. This honest and fair
18 request was denied. Local citizens signed a petition
19 asking that hearings similar to this be held before
20 research started and 1,680 adults signed this petition,
21 twice the number that chose to vote in the previous
22 municipal election. This petition did not say that
23 research should not be done. They just asked that
24 hearings be held first. This simple request was denied.

25 We are concerned with how community



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1 approval for AECL's plans is determined. The citizens
2 of the affected area asked for a plebiscite. This was
3 denied at every turn. Then we were told that community
4 approval would be judged by what a town council decided.
5 Ironically, AECL's research was being done outside town
6 council's jurisdiction.

7 AECL's, Ontario Hydro's, Energy, Mine and
8 Resource's and the Ontario Ministry of Energy's dealing
9 with the citizens of Atikokan brought the serious flaws
10 of the public approval process into clear focus. Every
11 level of government promised that no research could be
12 carried out without community approval, but the citizens
13 of our community humbly asked for a voice in this
14 approval process by referenda, by plebiscite, and by
15 petition and at every turn AECL insisted that community
16 approval be defined only as approval by a town council.

17 Now in those days, those lucky days, town
18 councils were elected on issues which were like what
19 street should be paved first. They're seldom elected on
20 issues with the gravity of hosting a nuclear dump.

21 For further background into our concerns
22 with the community approval process, I refer you to, and
23 encourage you to read the brief prepared for Atikokan
24 Citizens for Nuclear Responsibility by Cliff McIntosh,
25 Bettina Miyata and Marie Nelson for presentation to the



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1 Ontario Select Committee on Hydro Affairs in 1988.

2 That's my Exhibit 2 in that envelope.

3 For a detailed chronology of events in
4 Atikokan on this issue, refer to Exhibit 3, this
5 chronology is from the Master's thesis of Anthony K.
6 Murphy and Dr. Bryn Gree-Wooten from the Graduate
7 Program in Geology at York University.

8 Because the local citizens wanted hearing
9 and a direct voice in decisions regarding this research,
10 AECL characterized us as "uninformed and superstitious."
11 Now AECL mounted a very large public relations campaign
12 to inform us. Unfortunately they chose only to inform
13 us through their experts and strongly discouraged us
14 from bringing in experts with independent voices, which
15 we did anyway, and which we did mostly out of our own
16 pockets.

17 While our citizens were scrambling around
18 trying to get both sides of the picture, a highly
19 secretive group called the Canada/Ontario Fuel Waste
20 Management Co-ordinating Committee, unleashed a skilled
21 and handsomely funded campaign against our citizens.
22 This committee was Chaired by Stanley Hatcher and its
23 secretary was AECL's public relation expert, Egon Frech.
24 You probably all know Egon. He's here tonight.

25 I say secretive because even the Select



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1 Committee on Hydro Affairs didn't know of the
2 Co-ordinating Committee's existence and had to spend a
3 10 day legal battle to get some, but not all of the
4 minutes, of this Co-ordinating Committee's meetings.
5 Well, in those minutes - they were leaked to us by the
6 Select Committee - we found that the Co-ordinating
7 Committee was using the media to attempt to paint the
8 Atikokan Citizens for Nuclear Responsibility and anyone
9 who questioned AECL or their method of research is
10 uneducated, uninformed, superstitious and emotional.

11 AECL members on the Co-ordinating
12 Committee bragged about accepting reports on ACNR's
13 activities. The signed reports were appended to the
14 minutes like trophies. So they were receiving phone
15 calls and little letters on what we were doing and what
16 we were saying and what our plans were. It divided our
17 community unnecessarily. There was no need for this
18 kind of highly skilled, highly paid, highly underhanded
19 campaign against us.

20 Could you trust AECL after what they were
21 willing to do in order to divide our town? I don't
22 think you should.

23 Atikokan declared itself a nuclear free
24 zone recently after the shmozzle it went through with
25 the low-level waste problem.



1 Our concern is that even after the
2 community has declared itself a nuclear free zone the
3 federal ministries involved might define the disposal of
4 nuclear waste in the north as "in the national
5 interest." This definition of national interest could
6 override the informed decision of a town council or a
7 plebiscite and shaft the community anyway.

8 Nuclear waste facilities have been and are
9 being promoted as "economic development" for northern
10 communities. Garbage dumps are not economic
11 development. To promote nuclear waste management as
12 economic development is misleading and unethical.

13 Remember when our iron mines failed?
14 After the mines failed our townspeople were desperate to
15 keep our community intact and viable. The government
16 should not take advantage of this honest and
17 understandable desperation of Atikokan or any other
18 small town. The promised economic development of
19 nuclear waste management should not be used as an
20 inducement in these hard-up communities. This is an
21 unethical and unfair practice.

22 Part of the ethics problem in any kind of
23 waste disposal in the north is the attitude that since
24 the citizens in the large metro area outnumber the
25 citizens of the north that it's the majorities'



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1 democratic right to park the waste products of their
2 lifestyles on the minority.

3 Now the value of democracy is weighed in
4 how it treats its minorities. A true democracy would
5 safeguard the rights of all of its citizens, whether
6 they choose to live in a large metropolitan area or
7 choose to live in a rural community in the north.

8 Only communities in the north are being
9 forced to examine the scientific and political problems
10 of high-level nuclear fuel waste disposal. The citizens
11 in communities that are forced to deal with this issue
12 deserve commendations for not just bending over quietly
13 and letting the problem become out of sight - out of
14 mind. Instead concerned northerners are actively
15 painted as people with the NIMBY Syndrome, as if the
16 NIMBY Syndrome were some dreaded disease that only
17 backward country dwellers are too uneducated to prevent,
18 and the real NIMBYS are the people in Toronto, in
19 Ottawa, in the metro area that want to suck up all of
20 the energy, they want to use the nuclear power, they
21 want to have the jobs, going to school learning how to
22 be physicists and technicians and playing with the
23 stuff, but they wouldn't want it near their home. They
24 don't want the waste products there. That's the NIMBY
25 Syndrome and that's the big -- that's where the NIMBY



1 Syndrome is the biggest because that's where the most
2 people are. And it's undemocratic for them -- it
3 doesn't speak well for them to want to just push that
4 into the north because there's nobody here. They're
5 just transients. They move from one mine to the next.
6 It's not a pretty picture.

7 Now a former town councillor from Atikokan
8 is going to speak later tonight incidentally - Moe
9 Sheppard just signed up today - was active on this issue
10 for years and he used to say that even if AECL or EMR or
11 Ontario Hydro just wanted put a rose bush in your
12 backyard, you should have the right to say, 'no thank
13 you.' Even if they tell us that the roses will smell
14 good, that the bush will be pretty, you should be able
15 to just say no. Perhaps you don't like that variety.
16 Perhaps you think it would alter other plans you have
17 for your backyards. Perhaps you're allergic to roses or
18 perhaps you just don't trust strangers bearing gifts.
19 It doesn't make any difference. You should just be able
20 to refuse the gift of even a rose bush.

21 Another way of understanding, going back
22 to the NIMBY Syndrome, is to spell N-I-M-B-I and now it
23 becomes "Now I Must Become Involved." That's the real
24 NIMBY. This is what's made the people of the north into
25 NIMBYs, "Now I Must Become Involved."



1 When we get all the people in this
2 province informed and aware of all of the aspects of
3 this problem then maybe in the south they can overcome
4 their NIMBY reaction, not in their backyard. Maybe we
5 can discuss this in truly rational scientific terms and
6 spend the money that's necessary to spend on solving the
7 problem. We have created the problem, the problem must
8 be taken care of. Everybody realizes that. Research
9 needs to be done. More research needs to be done.

10 Before many other Panels, Committees and
11 individuals in the past, we ask that AECL, Energy, Mines
12 and Resources and the Atomic Energy Control Board be
13 taken from the fuel waste management problem and that a
14 separate and independent body, much better funded, be
15 given the task.

16 Every time this AECL funding is cut back,
17 it sends a shiver of fear through these small
18 communities, not just through Pinawa, not just
19 Whiteshell, not just AECL's head offices in Ottawa.
20 When we hear AECL's budget has been cut back it's scary.
21 We know what they're trying to do with that budget and
22 when it gets stretched thinner and thinner, how can we
23 trust that they're going to spend the proper amount of
24 money to take care of the waste?

25 We believe that we need a separate



1 independent body, much better funded, to be given the
2 task of managing nuclear waste. EMR has demonstrated a
3 stick it in the north dispose it attitude. The powers
4 that promote nuclear expansion won't open their minds to
5 the alternative of safe monitored storage.

6 The format and mandate of this
7 environmental assessment in which we are participating,
8 has been under the design of AECL. I hope this is
9 interesting to the Panel and I actually hope it's news
10 to this Panel, that these hearings have been actively
11 under the design of AECL since at least 1979. They have
12 decided what hoops AECL and Energy, Mines and Resources
13 would like to ask them to jump through. So they've
14 designed the hoops, they've been preparing to jump
15 through the hoops for years now and to them this is a
16 mere formality just to satisfy some sort of format
17 designed by somebody that they really don't care about,
18 or they'd just rather let off steam. If it has to be
19 done, it has to be done, but it's really a public
20 relations management hoop for them to jump through and
21 they've been preparing for this for years.

22 The proof of this is in Appendix No. 1 to
23 the minutes of the 13th meeting of Canada/Ontario
24 Nuclear Fuel Waste Management Co-ordinating Committee
25 held September 12th, 1979, at the Whiteshell Nuclear



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1 Research Establishment. This appendix to that
2 Co-ordinating Committee meeting is very interesting in
3 how it demonstrates that as early as 11 years ago AECL
4 and the Atomic Energy Control Board were designing and
5 preparing for these hearings.

6 It's our concern that because of AECL's
7 history of promotion of the nuclear empire and their
8 historic interrelationship with AECSB, that any
9 conclusions about what rock types to investigate, the
10 allocation of scarce research funds, the format of the
11 assessment hearings, will be biased in the nuclear
12 industry's favour.

13 We believe that if it takes more money
14 than what has been spent in nuclear research,
15 development, capital cost to the reactors, promotion,
16 whatever to this date to satisfactorily manage the fuel
17 wastes generated, well so be it. Future generations
18 should not have to suffer the economic or environmental
19 effects of AECL's attempt to expand or prolong the life
20 of the nuclear industry. I table the minutes of this
21 AECSB and AECL attempt to design their own environmental
22 assessment of their own plans as my Exhibit No. 4.

23 Another serious concern of ours is that
24 AECL has not been forthcoming with our attempts to get
25 information on the process and mechanisms of how their



1 plans, research and public relations are designed. Now
2 it took the Select Committee on Hydro affairs of 1980, a
3 protracted legal battle with the AECL for the Select
4 Committee, to be able to see even a censored version of
5 these Co-ordinating Committee minutes. See Exhibit 5,
6 the Globe and Mail clipping of January 23, 1980. It
7 took our group many efforts in order to see these
8 minutes.

9 Just three weeks ago, AECL, through Egon
10 Frech, sent us part of these minutes that they've so
11 long denied us and just this afternoon in talking with
12 Egon Frech outside the room here, I asked him, "Am I
13 going to get the minutes to meetings 16 and 17," and he
14 said, well he's still trying to get permission for me to
15 be able to see them.

16 This reluctance to open their souls,
17 they've got to bear their souls. They're promoting this
18 stuff. They shouldn't have any secrets from us. If
19 they're designing campaigns to promote nuclear power, we
20 ought to be able to see how these are generated, where
21 they're coming from, how much money is being spent on
22 them. If they intend to intimidate a small anti-nuclear
23 group, if they intend to infiltrate it, whatever their
24 plans might be, I believe that the citizens, any
25 citizens in this country, ought to be able to see those



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1 documents. I don't think what they're doing is right,
2 on one hand saying they're open and free with
3 information. They'll give you a six page formula or
4 something for the time it takes their computer model to
5 say that waste is going to get out of a containment
6 vault to the surface or something in 700. They're
7 absolutely free about those kind of guesstimates and
8 stuff, but when it comes down to their actual, how they
9 design their programs and their plans, how they allocate
10 their resources and stuff, no, we can't see that. We
11 can't understand that. We're not allowed to see who or
12 how that's being done. This is wrong.

13 A letter from Stan Hatcher of AECL on June
14 22, 1979, explains to me that these documents are not
15 written for general public and I can't have copies. A
16 copy of this letter is my Exhibit 6.

17 It's our concern that AECL's internal
18 workings are not open to external scrutiny by involved
19 citizens. AECL has spent a lot of time, money and
20 efforts through their highly skilled public relations
21 team to seriously discredit the people and the goals of
22 Atikokan Citizens for Nuclear Responsibility. Their
23 efforts have done much to foster divisions in Atikokan
24 and these unnecessary divisions are an unethical way of
25 dealing with the community approval process.



1 We believe that AECL's unethical meddling
2 in the community approval process is a fertile area of
3 research that needs deep exploration by your Panel and
4 we are prepared to help.

5 Thank you.

6 THE CHAIRMAN: Thank you, Mr. Hiner.

7 I wonder if I might be allowed just to
8 make one point of correction from fairly early on in
9 your statement, and I think you got them -- you asserted
10 that our Panel's mandate was limited strictly to the
11 question of deep rock disposal.

12 I thought I had made it clear in my
13 opening statement that while the deep rock disposal
14 proposal is something to which we will of course have to
15 devote a great deal of attention, because that was
16 before us in some detail, we will also, in addition to
17 that AECL proposal, examine a broad range of nuclear
18 fuel waste management issues including long-term
19 management, transport and environmental and social and
20 economic effects.

21 So the mandate we have is clearly not as
22 broad as you would hope it to be, but is not perhaps
23 quite as narrow as you might think it to be.

24 MR. HINER: Okay. Thank you for your
25 correction.



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1 THE CHAIRMAN: Are there any questions of
2 clarification which any members of the Panel would like
3 to put to Mr. Hiner?

4 We have, and thank you for that not only
5 written statement, but a number of attachments which
6 we'll all have to read, of course, in due course. It
7 will be helpful. Thank you very much indeed.

8 ---Mr. Hiner withdraws

9 THE CHAIRMAN: Can I inquire whether,
10 because he was next on the list, Mr. Chris Reid, of the
11 Ontario Metis and Aboriginal Association is here now?
12 If he is we would certainly be glad to hear from him.
13 If he's not at the moment, I will move on to the next
14 person and group on my list and that is the Atikokan
15 Native Friendship Centre, together with Seine River
16 Bank/Lac Lacroix Band, and Glen Nolan, I believe, is
17 speaking on their behalf.

18 PRESENTATION BY MR. NOLAN:

19 Good evening ladies and gentlemen and
20 members of the Panel. Thank you for inviting me this
21 evening. I'm glad I'm sitting down or otherwise you'd
22 hear my knees knocking.

23 As was mentioned I represent the Native
24 people in the Rainy River district of Northwestern
25 Ontario, and before I start off talking about the



1 concerns we have about the concept of high-level
2 radioactive waste disposal proposed by Atomic Energy of
3 Canada Ltd., I'd like to bring up some points that we
4 are a bit distressed about concerning these scoping
5 meetings. The first one is the poor notification of
6 these meetings. In August, I guess, I never even saw
7 the advertisement in the paper, and if it wasn't for an
8 acquaintance of mine informing me, I wouldn't have been
9 able to voice my concerns tonight. Secondly, the people
10 that I represent wouldn't of had a voice tonight as
11 well. I think that in the future for these meetings we
12 should inform the public in a greater advertisement
13 campaign.

14 Secondly, I guess it has something to do
15 with the time that I was notified of this and the amount
16 of white tape I had to go through dealing with the other
17 friendship centres, the other bands, communications and
18 so on. These bands are isolated and it takes a long
19 time to have contact with them. But I have a full-time
20 job, I have a family, and it's very hard for me to
21 devote all my time specifically to this cause. I'm just
22 a member of the public and I feel that there should be
23 more time given to people who are participating to
24 prepare a proper submission for these meetings.

25 And the third point I'd like to bring up



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1 is that - I think Mr. Hiner already mentioned it - is
2 something about the environmental assessment. My
3 understanding of environmental assessment is that
4 these -- it's set aside for specific sites. If Atikokan
5 was chosen as a nuclear waste area then they would do an
6 environmental assessment on that area, and I don't think
7 it should be based on a concept, and maybe I'm wrong,
8 correct me if I am wrong, and I hope that if there is a
9 site that is going to be located that they do a full
10 environmental assessment when they do choose a site.

11 And the last thing I'd like to bring up is
12 I'm really wondering if our voices are actually going to
13 be listened to after we make our presentation.

14 There was a five million dollar commission
15 that was tabled in 1980, the Porter Commission and Dr.
16 Kenneth Hare also had a report that he did by himself.
17 Most of those recommendations that Dr. Hare presented
18 were followed by Atomic Energy of Canada Ltd. because
19 they were in favour of his report. But the one
20 important part of the Porter Commission that they
21 neglected to follow-up on was their recommendation to
22 have a moratorium on nuclear power expansion and I think
23 that's very important. I'm wondering if I'm just
24 wasting my time here tonight in making these
25 presentations.



1 I'd like to say that the Native people
2 that I represent are very much against the whole idea of
3 having a nuclear waste depository in Northern Ontario.
4 They feel that this is very much out of step with their
5 traditional way of life and the possibilities of having
6 problems are there, and they don't want to have to go
7 through another incident like what happened to the
8 Grassy Narrows and White Dog Bands with the poison of
9 the English Wabigoon River system.

10 Essentially Native people have lived off
11 the land for centuries, and within the past couple
12 hundred years Natives have been their traditional way of
13 life slowly deteriorating because of external events.

14 Now these external events caused their
15 land to be taken away and what is left is slowly being
16 polluted, as everywhere else is being polluted. But
17 more than any other group of people that live in
18 Northern Ontario, Natives still rely heavily on fishing
19 and hunting for the bulk of their diet.

20 Are we willing to put these people at
21 risk? As this century draws to a close, we see a
22 greater awareness about the environment and the fragile
23 link between the earth and us humans.

24 What we are dealing with tonight is a
25 concept by Atomic Energy of Canada Ltd. to put



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1 high-level radioactive garbage into the natural
2 environment where it could easily sever this important
3 link between us and the land.

4 We are dealing with the most toxic of all
5 human made waste. If exposed to a recently extracted
6 full bundle, a person would become sick through
7 radiation and would most certainly die. This is very
8 toxic stuff and it has -- and it's very important that
9 we know that. And it takes thousands, literally
10 thousands of years for this waste to become stable.
11 That means there's no more emissions of radioactivity
12 coming from it, and that's in the order of 250,000
13 years.

14 Now I don't want to be disrespectful to
15 scientists or to engineers, but I have a problem dealing
16 with some scientists and engineers with our lives.
17 Bridges have collapsed, buildings have toppled and the
18 Titanic sank. Engineered structures just do not last
19 forever. It would be arrogant for any person to think
20 they could design such a facility. Just think about
21 it, 250,000 years. That's a very long time.

22 What our society does to the earth today
23 will inevitably show up some time in the future. Do we
24 want to leave radioactive poisoning of our earth as a
25 legacy for our grandchildren and their grandchildren?



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1 The concept of geological disposal is
2 flawed. Atomic Energy of Canada Ltd. wants to put the
3 waste in an intrusive igneous rock. What has led them
4 to that decision? A recommendation by the federal
5 government, that's what. It was just a recommendation.
6 No scientific evidence at all. That's all it took, and
7 there hasn't been any research in any other rock types
8 in Canada, and they haven't covered all the spectrum of
9 the geology out there.

10 How can we know that an igneous rock type
11 is superior to let's say a gabbro or a syenite? Atomic
12 Energy of Canada Ltd. should do further research to
13 assure all the critics and proponents that a particular
14 rock is the absolute best. Realistically, the waste
15 should not be disposed of in a vault a thousand meters
16 underground. This would mean that the retrieval of
17 waste, if there was ever a problem in the containment of
18 the vessel or the waste, economically it would be
19 impossible to retrieve, and it would again put more
20 people in hazard.

21 Now why has the north been targeted for a
22 burial site? I don't feel that the decision is based on
23 valid scientific data. I feel that it is a political
24 decision based solely on the number of people to be
25 offended if the waste were placed in Southern Ontario --



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1 excuse me, kept in Southern Ontario, where most of it is
2 stored right now.

3 Frankly, the federal government is
4 presently trying to deal with low-level waste in the
5 same way. As was mentioned earlier, the town of
6 Atikokan was involved in the siting of low-level
7 radioactive waste and Prime Minister Mulroney made a
8 promise to the residents of Port Hope, where there's 900
9 thousand cubic meters of low-level radioactive waste.
10 He promised them that he would move it from their
11 community and not because it's a scientific reason, it
12 was just because he was looking for votes, and secondly
13 he said that it would be stored away from a large body
14 of water. That had no scientific validity to it. In
15 fact I asked an engineer after that about if it could be
16 stored safely by Lake Ontario or anywhere else? He
17 said, 'oh, yes, we can store it very safely.'

18 I forgot where I am. Any way, storing it
19 in the -- excuse me. Anyway, the federal government
20 wants to move this stuff away from the larger population
21 centres and I'm wondering, is this really a fair
22 democratic solution.

23 The population of Southern Ontario has
24 benefited directly from the production of nuclear energy
25 and the waste that it produces and they benefited



1 economically with jobs from Ontario Hydro and in the
2 service and supply sector when those firms deal directly
3 with Ontario Hydro for components and for actually
4 constructing the power plants.

5 In reality it is Southern Ontario's
6 garbage. Let them deal with the problem. The waste
7 should be stored in its present location. There are a
8 couple of reasons for this. The transportation of the
9 waste would be eliminated, you would cut down the costs
10 associated with transporting this material. The cost of
11 containers are very, very expensive and that money
12 that's saved could be put in a very safe, very reliable
13 storage system; and problems associated with waste
14 containers can easily be corrected on site, on location,
15 detection will be much faster and it will be easier to
16 clean up if it's stored as opposed to disposed of in
17 deep underground vaults.

18 Atomic Energy of Canada cannot deal
19 effectively with the waste problem if we continue to
20 produce more. Now I realize this is outside the Panel's
21 mandate, but it should be addressed. Stop the
22 construction of all nuclear power plants until we have a
23 greater understanding of what we can do safely with the
24 waste.

25 It seems ironic that a Panel of this



1 prestige has such a narrow mandate because this
2 radioactive issue is not narrow. It's very, very broad
3 and it has a very significant impact on our environment.
4 Right from the mining, the milling of the rock to the
5 refining of the material to concentrated radioactive ore
6 into the fuel bundles and the waste that's produced
7 through these power stations and eventually the
8 decommissioning of these power plants, after 30 or 40
9 years, whatever the life expectancy is of these plants.
10 They have to be torn apart and stored somewhere as well.
11 They are very radioactive. All these steps have a
12 direct impact and present a very strong health hazard to
13 us.

14 Native people want to protect their land.
15 They want to protect the lakes, streams and forests from
16 destruction. They want to protect their way of life as
17 strongly as the people in Southern Ontario want to
18 protect theirs, and I might add that we'll also --
19 people from Southern Ontario will be protecting their
20 malls and parking lots as well.

21 The land, the water, animals, and air are
22 sacred to us. We understand the fragile link between
23 ourselves and the earth, but what we cannot understand
24 is putting waste so deadly that it can kill, putting it
25 in the ground, and that ground to us is sacred.



1 I'd like to sum up what I've talked about.
2 We feel that nuclear power plant construction should be
3 halted immediately so that we can deal effectively with
4 the waste that has already been produced and that will
5 be produced for the next 20 years in the remaining power
6 plants that are still operating.

7 More rock types should be looked at and
8 the area of research should be expanded to include all
9 rock types and all different, if they're going to go
10 that way, and all types of storage facilities that are
11 out there.

12 Atomic Energy of Canada cannot guarantee
13 that its containment methods will safely isolate the
14 material for any length of time. They are expecting a
15 certain amount of emissions out of there and I feel if
16 that's the reasoning they should have it stored above
17 ground and stored at the power plants, at the site where
18 it's being produced right now.

19 And as I mentioned, storage is by far
20 superior from my point of view and the people I
21 represent, it's by far more superior to store it than is
22 it to dispose. If there is a problem it can be
23 retrieved and it can be corrected within reason.

24 I would like to sum up with a quotation
25 from a Chief of the Squamish Tribe in what is now



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1 Washington State, and you have to remember this was
2 said -- presented as a message to the United States
3 president in 1854, and Chief Seattle said this;
4 "Whatever befalls the earth befalls the sons and
5 daughters of the earth. Humans did not weave the web of
6 life. They are merely a strand in it. Whatever humans
7 do to the web they do to themselves."

8 Thank you.

9 THE CHAIRMAN: Thank you very much, Mr.
10 Nolan.

11 Are there any questions which Panel
12 members wish to put to Mr. Nolan? Again I think you've
13 expressed your views and your concerns very clearly to
14 us. We've taken note of them.

15 ---Mr. Nolan withdraws

16 THE CHAIRMAN: I still have three and
17 possibly four people who'd like to address. I am in
18 your hands. Would you like to continue straight-away,
19 would you like to take a small break for coffee and then
20 come back? Would you like to keep it rolling? I see
21 one head nodding in favour of coffee. I don't know
22 whether that constitutes majority in this place or not?

23 Ten minute break but I really will -- get
24 your coffee fast or tea or whatever you want and let's
25 continue because I want to make sure that there is



1 enough time to hear the three or four people who want
2 to -- have things to say to us still. We'll have a ten
3 minute break now.

4 ---Recess taken at 8:30 p.m.

5 ---On resuming at 8:45 p.m.

6 THE CHAIRMAN: I'd like to get the
7 proceedings underway again. We're now well after 8:30.

8 I now have requests from five and possibly
9 six people. That being the case I would hope that all
10 of those who participate will try to convey their views
11 and their comments with as much succinctness as they can
12 in order to ensure that we can hear from everyone who
13 wants to be heard from tonight.

14 Could I call first on Moe Sheppard.

15 PRESENTATION BY MR. SHEPPARD:

16 Thank you, Mr. Chairman and ladies and
17 gentlemen. My name is Moe Sheppard, as you already
18 know, and I am a staff representative for the United
19 Steelworkers of America, and I'm presently stationed
20 here in Thunder Bay.

21 My old friend, Dick Hiner, has ensured
22 that my notoriety preceded me by quoting me.

23 Before I get to that, though, I should say
24 I do not have a written presentation. I will give a
25 verbal presentation.



1 I am now in my conservation mode, a
2 position I understand that is outside this Committee's
3 mandate to consider.

4 In any event, briefly let me go back to
5 the days of Atikokan. Dick Hiner has reviewed very well
6 the events of Atikokan. I was a councillor in 1980 when
7 the petition that's been spoken of surfaced and wanted,
8 screamed out to be presented to the council. And it's
9 useful to remember that I could not get a seconder those
10 days to accept that petition of some nearly 1,700 people
11 which had been gathered over the weekend. So that the
12 petition never did have a legitimacy. Council would not
13 take credit for having sired the beast. Nonetheless,
14 though, I think it said to me, and raised a concern that
15 I still have about really what was happening in Atikokan
16 in the 70's and in the 80's and indeed is happening in
17 Northern Ontario today.

18 That council, and I was a miner at the
19 time, had, I think, two other miners on it, a housewife,
20 clerk, a teacher, a businessman, and it occurred to me
21 that the subject that was being thrust upon our
22 shoulders, or in some cases I guess people would say we
23 went out and sought it out, was much too weighty and
24 clearly was much beyond what the Ontario Municipal Act
25 had ever envisaged.



1 If you wanted to open a bar in Atikokan in
2 those days we were forced by law to go to referendum.
3 We could not approve it. By the same token, though, we
4 were being asked to approve, in some ways, this drilling
5 program which as Mr. Hiner has already pointed out was
6 outside the parameters of Atikokan in any event.

7 I want to ask the Panel a question. If
8 indeed this Committee purports to seek out the
9 scientific truths, and I have to ask what you're doing
10 here, and on the other hand I guess your presence
11 suggests to me that really what this exercise is about
12 is a political exercise.

13 Clearly it has been pointed out that the
14 acceptance of nuclear waste, or the siting of it, or
15 what we do with it goes much beyond an economic
16 activity. It is, I believe, an economic terrorism
17 that's been visited upon the north going back to about
18 1978, when small communities like Atikokan, which was at
19 that time decimated, was seen as a likely place to put
20 your waste because those people are desperate, they are
21 miners and they will accept just about anything. And
22 the fact of the matter -- well, let me tell you.
23 Canada's representative to the ICRP Geneva was brought
24 home and told us at an energy conference in Fort Frances
25 that there would be about 3,000 jobs that would ensue



1 from this underground receptacle and when he was
2 questioned about what those 3,000 people would do, he
3 told us that they would seeking a shaft, and my old
4 friend, Alec O'Neil, who was the President of the Local
5 Union at Steep Rock, and who is now unfortunately
6 deceased, asked him how big a hole they planned on
7 making in the ground or whether they planned on boring
8 straight to the centre of the earth because most
9 drilling crews will not have more than 50 people at the
10 outside.

11 It was that kind of scenario back in the
12 '70s and '80s that gave rise to this kind of skepticism
13 you see here tonight. People simply didn't believe
14 because what was being put forward as the reasons for
15 their being there was so outrageous and so unbelievable
16 that people believed that they were treated as idiots.
17 In many respects that kind of skepticism is still there
18 and in many ways, I guess, is justified.

19 I'd just like to tell you I have a friend
20 in Red Lake. She's a Native woman, and she has taught
21 me many things over the years, but two things are
22 important, I think, to what's going on here tonight and
23 what's gone on in the North for the last 10 to 12 years.
24 She has said to me that the Eskimo women in Northern
25 Canada who have been told in the last year or two that



1 the milk that they feed their children is contaminated
2 with PCBs. They simply cannot comprehend. There is
3 nothing in their background or their culture that allows
4 them to for one moment believe that the milk that comes
5 from their bodies to feed their children can be
6 poisoned. It's incomprehensible to them.

7 The second thing she has said, is that
8 Natives living in Northern Ontario, the Cree, the
9 Ojibway, the near north if you will, cannot in their
10 language or in their culture comprehend the burial of
11 rocks. Rocks that burn and rocks that explode, that an
12 element of the earth can turn on you and destroy you,
13 and that too is incomprehensible to them.

14 This Committee and this nation owes those
15 people at least the ability to understand what the devil
16 it is we are attempting to do to their neck of the
17 woods, because they were here long before we got here.

18 I just want to tell you from my practical
19 experience, I worked in a mine for some 10 years and I
20 have served in my union miners for another 15.

21 In Elliot Lake, 400 people, members of our
22 union have died in the mining of uranium, 200 of them
23 have been compensated, excuse me, 200 hundred of them --
24 all of them are dead. Two hundred widows and children
25 have been compensated, 200 widows and whatever children



1 there are, the offspring of the other 200 have not ,
2 received anything, and I hope that we when put this
3 whole thing together, in the end, and this Committee is
4 ready to make a recommendation, it cranks in some dollar
5 signs that reflect that kind of ravage and that kind of
6 destruction. It is part of this business of trying to
7 get rid of nuclear waste.

8 Let me illustrate for you graphically why
9 I believe - and I am here not on behalf of my union, I'm
10 here as an individual - why I believe this material
11 should be kept above ground in front of all of us at all
12 times. You have heard the expression tonight "out of
13 side - out of mind."

14 I want to show you some pictures from
15 active mines in this province, in this neck of the
16 woods, today. I didn't make this up. These are real.
17 I want you to have a look at those. Some cases will be
18 doubles. Some of them show an explosives box adjacent
19 to a toilet and not a very clean toilet by the way.
20 Here's a toilet incidentally. Here's an explosives
21 magazine where we store explosives. It's not nearly, I
22 suggest to you, as dangerous and clearly the effects of
23 that explosion would not nearly be as long lasting as
24 we're likely to see from a major rupture in the earth's
25 crust if we have a spill of this stuff here.



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1 That is due in part to the miner, but you
2 also have to know that there's a management team and
3 they are engineers and they are scientists and they are
4 technical people, and they are for all intents and
5 purposes responsible people. Are they criminals? Do
6 they have criminal intent? Do they want people to hurt
7 themselves or to kill themselves? I don't think so, but
8 it is, you see, part of the human condition. The more
9 we handle things the more the abnormal becomes the
10 normal. The easier it gets. And then one day the whole
11 thing blows up in our face.

12 That's what those pictures are about. A
13 reminder that at the end of the day the scientist goes
14 to work and has had a big fight with his wife before he
15 left the house, and the 17 year old has wrecked the car
16 the night before, and that the child will not do what
17 the father wants it to do, and that the town council is
18 being recalcitrant. That all of the kinds of things
19 that make us mad and annoyed and irritated and
20 irresponsible happened to him just like it happens to
21 you and I. And that this is why this material ought to
22 be kept above the ground and so that the old watchman,
23 as he makes his rounds in the middle of the night, is
24 able to say the color has changed, it's boiling, there's
25 smoke, something's happening over there in the pool. I



1 must go and get somebody responsible. And if it's
2 buried 10,000 meters into the Canadian Shield nobody
3 will see it, smell it, touch it or feel it until it's
4 much, much too late.

5 We talk about burying it in the Canadian
6 Shield. If I phone the weather office here in Thunder
7 Bay today and ask them what the weather is going to be
8 like three weeks from now, he will give me a 30 per cent
9 possibility that they will be anywhere in the range.
10 They don't know. That is one of the marvelous things
11 about mother nature. She keeps surprising us. But
12 ultimately, if left to her own devices, she does those
13 things that appear to us to be always right, but she
14 does not give up her secrets lightly.

15 And as long as nuclear waste remains under .
16 the control of mere mortals such as you and I, I want it
17 front and centre, big flags on it, whistles, all sorts
18 of things so that we don't ever forget that it's there,
19 it's very dangerous and we should be very careful.

20 In the meantime, the people who gave rise
21 to this should be sent packing to look for the
22 scientific answer. It's not a scientific answer to bury
23 it, put it away so nobody can see it and then go on
24 maybe to produce things that are even more dangerous.

25 There's an old -- I just wanted to say



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1 briefly a bit more about this business of trying to send
2 garbage into Northern Ontario. We have got to stop
3 treating this as some sort of commercial activity. I
4 mean that is nothing short of criminal. We have
5 communities in Northern Ontario so desperate for jobs
6 that they phone up Toronto and Hamilton and AECL and say
7 please give us anything, we want some jobs. Clearly
8 that is not what the mandate of this Committee is, and
9 job production and job formation and job creation is a
10 responsibility of the federal government and the
11 provincial governments, and not of the Atomic Energy
12 Company of Canada.

13 Last thing would I say to this Committee
14 and to everybody here, there's an old African saying
15 which says, "I kept feeding the alligator hoping that he
16 would eat me last," and in some respects that's what's
17 happening here in Northern Ontario with this chasing
18 after people like AECL for some sort of economic
19 activity.

20 I thank you very much for the opportunity
21 to have addressed you.

22 THE CHAIRMAN: Thank you, Mr. Sheppard.
23 We've looked but make sure you get these photographs
24 back.

25 MR. SHEPPARD: Oh, indeed I do, Mr.



1 Chairman. I never go anywhere without my photographs.
2 The mining community would be disappointed if I did.

3 THE CHAIRMAN: Are there any questions
4 which anyone would like to put to Mr. Sheppard while
5 he's here?

6 Thank you. We've heard you. Thank you
7 very much.

8 ---Mr. Sheppard withdraws

9 THE CHAIRMAN: Could I call next on Nancy
10 Quennell.

11 PRESENTATION BY MS. QUENNEL:

12 Good evening Mr. Chairman and Panel.
13 Thank you for the opportunity to speak tonight. Please
14 excuse my lack of preparation. I came only as a
15 listener tonight and did not realize I would be speaking
16 until I got here, so I'm not well prepared.

17 I'm here as a concerned citizen of Thunder
18 Bay. I felt this issue was too strong for me not to
19 voice an opinion on.

20 Approximately four years ago I was a
21 participant in a discussion, a private panel discussion,
22 that was conducted by Ontario Hydro. It was a private
23 panel discussion of approximately 40 people, a cross
24 section of the people in Thunder Bay, some of us with
25 university degrees, some without.



1 We were presented with a very glossy
2 package stressing the safety of storage for high active
3 nuclear waste in the Canadian Shield. We were asked for
4 our opinions on the topics they presented us with. Some
5 of the things we were presented with were that we were
6 the safest storage area for Ontario. Also how would we
7 feel about being the safest storage area for Canada, and
8 thirdly for the world. Certainly this would assist with
9 our sales of nuclear reactors to other countries if we
10 offered to accept their waste. It was very frightening.

11 We were also asked how would we feel about
12 other communities in Northern Ontario accepting high
13 active waste. They wanted to know how economically
14 distressed communities could be encouraged or enticed to
15 bid for site location. Wonderful issues were raised
16 such as job creation, recreation facilities, future
17 community development for these communities.

18 I really question the ethics of this. Are
19 we not a sad society when we have to prey upon
20 economically distressed communities to accept things
21 that communities with healthy economics would not
22 accept.

23 The representatives from Ontario Hydro
24 were not able to totally satisfy our lay people's
25 questions about the safety of transportation through



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1 Thunder Bay. It was perhaps voiced that it would be -
2 done by transport or by trains. Many people had not
3 travelled this area in the winter and were not aware of
4 the weather conditions that we have in this area.

5 They were not clear on the construction of
6 the canisters, although they did stress to us that they
7 would probably be very safe, but could not really
8 reassure us in that area.

9 Many of us left quite frightened from that
10 meeting. I think we really need to look and that it's
11 not just a NIMBY situation. Northern Ontario is always
12 put as being a NIMBY society. That we don't want other
13 peoples' things. Surely were concerned about our
14 environment.

15 Personally I'm concerned about all people
16 in Ontario and all people in Canada. I don't want
17 somebody else to be having high active radio --
18 high-level radioactive waste in their backyard either.
19 I don't wish the people of Timmins or other small
20 communities to accept or bid for this because of their
21 economy.

22 I really feel it needs to be kept where
23 it's visual so that we're aware of what is happening
24 with it as it's happening. It's our understanding it
25 only encompasses the size of approximately two olympic



1 size swimming pools now. We really need to keep it in
2 its present location until we really can be sure of the
3 safety of where it might be stored in the future.

4 The discussion panel I went to was not an
5 open discussion panel. We were not -- we were more or
6 less told to not really voice our opinions that we had
7 voiced there or to make it very public.

8 I eagerly watched in the news the last
9 four or five years for more to be brought up about this
10 topic and have seen very little advertising by AECL
11 about this.

12 It seems rather ironic to me that hundreds
13 of thousands of dollars are spent on advertising and --
14 or not on advertising, but rather on scoping sessions
15 and on assessments and hiring professionals to look at
16 all these issues and yet very few dollars are spent on
17 advertising to the public.

18 Tonight, I think, is a great indication of
19 that. I had a hard time finding where the location of
20 this meeting was tonight, and only knew because of
21 involvement with an environmental group. In searching
22 our local newspapers this was not advertised. The
23 meeting location wasn't advertised. It comes across as
24 being public apathy and I don't think the public's
25 apathetic at all. I think they're just really unaware,



1 and in summing up please just keep us very well informed
2 so that we can make decisions in the future for the
3 safety of all Canadians.

4 Thank you for the opportunity to speak.

5 THE CHAIRMAN: Thank you very much, Ms.
6 Quennell.

7 ---Ms. Quennell withdraws

8 THE CHAIRMAN: Could I call next please on
9 Mr. Bruce Hyer.

10 PRESENTATION BY MR. HYER:

11 Good evening. I'm a biologist and I'm a
12 resident of Thunder Bay.

13 In 1976 I moved to Northwestern Ontario
14 from a very urban area far to the southeast. Here I
15 make lower pay than I made there, approximately a third
16 of what I made where I used to live. I have fewer urban
17 amenities. I moved here nonetheless, because I felt
18 that the drawbacks of living in Northwestern Ontario
19 were far outweighed by the benefits. The benefits, to
20 me, include a sense of community, wilderness, wildlife,
21 clean air and clean water.

22 We do have many of the civilized amenities
23 here and we do have electricity. We don't have
24 electricity produced by nuclear energy. We don't use
25 electricity produced from nuclear reactors. Why should



1 we have to be put at risk to bury wastes produced
2 elsewhere, many hundreds of miles away?

3 Risk. Is nuclear waste management safe or
4 is it not? If it is not, and we don't use nuclear
5 electricity ourselves here in Thunder Bay, then why
6 should we be put at risk? If it is safe then leave it
7 where it is produced.

8 Canada and Northwestern Ontario have areas
9 which are pristine wilderness. Areas of moderate
10 pollution, areas of heavy pollution, and some areas that
11 seem to be virtually irretrievably despoiled. I meant
12 to say Canada and Ontario not Northwestern Ontario.

13 It is time we initiate a national and
14 provincial policy of nondegredation. Perhaps we will
15 learn to control and remediate our worst forms of
16 pollution. Perhaps we won't.

17 Please, if nuclear waste can be safely
18 stored leave it above ground in the urban areas where it
19 is produced and used. Thank you.

20 THE CHAIRMAN: Thank you very much, Mr.
21 Hyer.

22 ---Mr. Hyer withdraws

23 THE CHAIRMAN: Could I ask next John Gibb
24 to speak to us.

25



1 PRESENTATION BY MR. GIBB:

2 Thank you. I concur with concerns already
3 stated tonight, in general, and specifically to the lack
4 of involvement in the mandate to some very important
5 items such as a thorough and well thought out plan of
6 conservation of energy for this Province. In my mind
7 Darlington would not be operating if Hydro had the
8 foresight years ago, and we wouldn't be in the mess
9 we're in today.

10 Now, I support concerns regarding the
11 integrity of the nuclear industry. I left the position
12 as a safety officer on a nuclear fuel processing line
13 because I very quickly found that the company and Atomic
14 Energy lacked a genuine commitment for worker safety,
15 preventing me from doing a proper job.

16 I respectfully suggest to the Panel that
17 they closely scrutinize the Madison Avenue methods of
18 the nuclear industry PR tactics. Please be prepared to
19 tell the Emperor that he has no clothes. Please be
20 prepared to see the nuclear industries PR work as a
21 smoke screen which may simply obscure a true and hidden
22 agenda.

23 Having said all that, I'd like to address
24 a specific area of concern. That is transportation of
25 high-level nuclear waste which has been addressed



1 briefly.

2 As a fire fighter trained in emergency
3 response, I have sat through Ontario Hydro information
4 sessions which included film footage on the performance
5 of various proposed containers in rail and highway crash
6 tests. I was not impressed with the presentations nor
7 was I impressed with the Hydro staff's inability to
8 answer serious and practical questions from the audience
9 following such presentation such as the reaction of the
10 containers and their integrity in situations where fire
11 balls are created, such as the Mississauga rail disaster
12 and similar other rail disasters and industrial
13 accidents that have occurred throughout North America.

14 I ask the Panel to please be certain that
15 they're absolutely satisfied with any and all
16 contingency plans put forward, not only for the disposal
17 site, but for all areas of the province through which
18 high-level radioactive waste will travel. Areas of high
19 population density to be certain.

20 Having followed the development of
21 contingency plans for Pickering Nuclear Station,
22 including when there wasn't one, and the numerous
23 bungled tests, I'm not prepared to accept the industry's
24 plans at face value.

25 To my knowledge it has still not been



1 determined what dose of potassium iodide is to be
2 distributed to citizens in the event of a release of
3 radiation. In the plan for Pickering, there are blanks
4 on that page. It's not determined what a child would
5 receive, adult, no dosage unless I'm not quite
6 up-to-date, but please check into that, Panel, to be
7 sure that you're satisfied with the medical information
8 and the certainty of distribution to the right people
9 within the proper time limit.

10 In closing, I commend the Panel as they
11 have undertaken an extremely important role for the
12 future of our planet. I hope you do not feel that your
13 job is thankless.

14 On behalf of myself, my wife, and my one
15 and a half year old daughter, I thank you for being
16 here.

17 THE CHAIRMAN: Thank you, Mr. Gibb.

18 ---Mr. Gibb withdraws

19 THE CHAIRMAN: Could I ask Clara Kasstan
20 to come forward, please.

21 PRESENTATION BY MS. KASSTAN:

22 We in Northern Ontario do not want nuclear
23 waste buried here. It is a matter of survival of all
24 living creatures and plants on the earth that nuclear
25 power be eliminated stated, Dr. Ursula Franklin, world



1 renowned physicist, in her lectures in the Massey
2 Series.

3 The scientists cannot improve on nature no
4 matter where they put the nuclear waste. Nature will
5 expose it through air, water and the ground.

6 Every nuclear power facility working and
7 storage continues to have problems of leaking radiation.
8 Rock formations are not solid, stable or impenetrable.
9 The are interspersed with various forms of earth and
10 vegetation. Even granite is defined as the granular
11 crystalline rock of quartz orthoclase and mica which
12 indicates that these properties can be affected by
13 pressures caused by heat, cold and water, resulting in
14 the granite being broken down and crumbled. Therefore
15 it cannot be a reliable place for safe storage of
16 nuclear waste.

17 If one were to study the graphical or
18 topographical map of Northern Ontario, one would see
19 that the land is covered with many lakes, rivers and
20 bogs. The cable land is low because of the alignment of
21 Hudson Bay with the Great Lakes, that is Lake Superior
22 and the other lakes.

23 20,000 years ago water to a height of
24 1,500 feet covered this area. Present signs indicate
25 that the sea level is rising, thus creating unstable



1 conditions for burying nuclear waste. Nuclear energy
2 must be eliminated and replaced by safe forms of energy
3 production.

4 Scientists to date have failed humanity.
5 Their initial purpose of creating nuclear power was for
6 war weapons. It still is a primary purpose today.
7 Their greed for political power and wealth has and is
8 causing monstrous disasters to life and the environment.
9 These scientists show no responsibility for their
10 actions. Hiding a problem is not solving it, such as
11 putting waste into the ground.

12 We need caring, intelligent and
13 responsible scientists to create safe forms of energy,
14 and I must add that Dr. Ursula Franklin was asked to
15 join the nuclear industry and she said she would only do
16 it to dismantle it, and that's all I have to say.

17 ---Ms. Kasstan withdraws

18 THE CHAIRMAN: Could I inquire whether
19 Chris Reid is here? We were hoping earlier to hear from
20 him on behalf of the Ontario Metis and Aboriginal
21 Association. If not, and if he was for one reason or
22 another not able to be present this evening, we will be
23 in touch with him to see if he would like to make a
24 written submission to us because we would like to hear
25 from him and we will follow that up, but if any of you



1 know him and see him you might just convey that message
2 orally that a written submission would be very much
3 appreciated also.

4 Are there others who wish to address the
5 meeting here this evening? If not it remains for me to
6 thank you, all of you who have attended, particularly
7 those groups and individuals who have spoken to us this
8 afternoon and this evening. You have spoken obviously
9 with great conviction, at times expressing great
10 cynicism, at times even anger.

11 We have listened carefully to you. We
12 have noted what you have had to say. We are doing our
13 best to make the use that should be made of these
14 remarks from citizens who have very strongly held views
15 on the subject of the management of nuclear waste,
16 indeed the nuclear industry.

17 Someone raised the question, I think,
18 whether there was any point in our speaking up, if this
19 is not just a matter for the scientists. I don't know
20 whether I put that quite in the right context, but let
21 me put my own possession on it.

22 We certainly need the very best scientific
23 advice we can get as to what is the best way of dealing
24 with such nuclear waste as we have now, leaving quite
25 apart the question of whether there will be more, or



1 should be more of it, and we intend to seek out the best
2 scientific and technical advice we can get. But as has
3 been, I think, readily apparent from all the discussions
4 we've been hearing today, the question is something
5 which is not limited entirely to science. The science,
6 I say, must be right but there are many, many other
7 considerations which go into making decisions and those
8 are decisions which governments will have to make in due
9 course as to what should happen with respect to this
10 particular kind of waste. And particularly if one looks
11 ahead to the possibility, if it came to that, of there
12 being some siting for a disposal vault, and that is only
13 one of the possibilities, you have mentioned others such
14 as retaining the waste where it is for a much longer
15 period, but if there should come a period of time when
16 it becomes necessary to look at siting, I think it is
17 evident that many, many other considerations besides the
18 scientific and the technical have to come in and they
19 will have to be taken into account by whoever makes
20 those decisions.

21 We have heard from you, from a number of
22 you, a number of criticisms about various aspects of the
23 process in which we are all engaged now, you by your
24 presence this evening and this afternoon, some of them,
25 if you will, administrative and technical matters there,



1 some of them are well taken, we have noted them, we will
2 do our best to correct them in the future, and to try to
3 make the process a better one and a more effective one,
4 particularly in the second phase when, we will, in due
5 course, we know, be looking in public hearings at the
6 validity of the variety of proposals which may be in
7 front of us at that time for nuclear waste management.

8 I would like to mention just one other
9 thing which I do with some trepidation, but I feel that
10 I must, and that is some suggestion as to the position
11 of the Panel and the Panel members with respect to this
12 whole process.

13 May I just say that the people who have
14 agreed to serve on this Panel have done so out of a
15 sense of responsibility, a broader responsibility, and
16 that which effects their immediate lives. Most of them
17 anyway have many, many other commitments and
18 responsibilities and it has not been easy for some --
19 for them to add this to those they already have. They
20 will, I know, absolutely bring to the deliberations of
21 this Panel the best personal and professional judgments
22 that they can without fear or favor, and I am hopeful
23 that as they will do this we may be able to make some
24 significant contribution towards understanding decisions
25 with respect to what we all know is a very difficult and



1 delicate problem.

2 I give you that as a commitment on behalf
3 of the Panel. We will do our best on it. All of us are
4 learning as we go along and adding to the knowledge we
5 have. You can count on us to give it the best shot
6 possible on behalf of all the people of the country.

7 Thank you very much. Good night. We move
8 on at a rather unearthly hour tomorrow to Sudbury where
9 we will hear from further people and we will hope to
10 have out, to all of you who have participated here, and
11 others as well, a draft of the guidelines which we are
12 charged with preparing, some time not too late into the
13 new year and we'll want to hear from you again on those
14 draft guidelines.

15 Thank you very much.

16
17 ---Whereupon the hearing adjourned at 9:15 p.m. to
18 resume Tuesday, October 30, 1990, at 2:00 p.m.

19
20 I hereby certify the foregoing to be a
21 true and accurate computerized
22 transcription of the proceedings, to the
23 best of my skill and ability.

24 *Carla Helman*

25 -----
Carla Helman, C.S.R.

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BUREAU FEDERAL
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ENVIRONNEMENTALES

Held at: President Hotel
Sudbury
Ontario

Date: Tuesday, October 30, 1990

Volume No.: 6

B E F O R E :

MR. BLAIR SEABORN	Chairman
DR. LOIS WILSON	Member
DR. LIONEL REESE	Member
MR. PETER van VLIET	Member

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HEARING BY THE FEDERAL ENVIRONMENTAL ASSESSMENT
REVIEW OFFICE ON NUCLEAR FUEL WASTE MANAGEMENT

SCOPING MEETING

Hearing held at the President Hotel,
Sudbury, Ontario, on Tuesday,
October 30, 1990.

VOLUME 6

B E F O R E :

MR. BLAIR SEABORN
DR. LOIS WILSON
DR. LIONEL REESE
MR. PETER van VLIET

Chairman
Member
Member
Member



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3		
4	MR. HOMER SEGUIN	United Steelworkers of America
5		
6	MR. RICHARD THOMAS	Parry Sound Greens
7	MS. BRENNAIN LLOYD	Northwatch
8	MR. DOUG FRASER	Temiskaming Greens
9	MR. TERRY GRAVES	Temiskaming Environmental Action Committee
10		
11	MS. KATHY HAKOLA MR. AMBROSE RAFTIS	Private Citizen
12	MR. LEWIS POULIN	Private Citizen
13	MR. ALAN ASHER	Private Citizen
14	MR. VYRN PETERSON	Private Citizen
15	MR. TIM MCGREGOR	Whitefish River First Nation
16	MR. LLOYD GREENSPOON	Lawyer
17	MR. ED BURT	Algoma Manitoulin Nuclear Awareness
18		
19	MS. JOAN KUYEK	Private Citizen
20	MS. KAY CHORNOOK	Private Citizen
21	MR. GARY HRYSTAK	Canadian Union of Mine, Mill and Smelter Workers, Local 598
22		
23	MS. MERVA McQUADE	Private Citizen
24	CHIEF MAX ASSINEWAI	Sheguiandah First Nation
25		



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1 ---Upon commencing at 2:00 p.m.

2 THE CHAIRMAN: Good afternoon, ladies and
3 gentlemen, and welcome to this first session of two
4 scoping meetings to be held in Sudbury by the
5 Environment Assessment Panel which is being charged with
6 a review of the Nuclear Fuel Waste Management and
7 Disposal Concept. This Panel was appointed by the
8 Minister of the Environment in October of 1989.

9 Let me introduce to you the members of the
10 Panel. Unfortunately, due to illness there are some
11 absences, but those who are present here today, on my
12 immediate right, Dr. Lois Wilson of Toronto, who is
13 president of the World Council of Churches and
14 Co-Director of the Ecumenical Forum of Canada. To my
15 immediate left, Dr. Lionel Reese, from London, Ontario,
16 a physician at St. Joseph's Hospital in that city, a
17 professor in the Department of Diagnostic Radiology and
18 Nuclear Medicine at the University of Western Ontario.
19 To his left again, Mr. Pieter Van Vliet, from Regina, a
20 mechanical engineer in that city and a member of the
21 Senate of the University of Regina. My name is Blair
22 Seaborn, I'm Chairman of the Panel and I live in Ottawa.
23 I'm retired, but I served previously as Deputy Minister
24 of the Environment and Canadian Chairman of the
25 International Joint Commission.



1 I hope it is clear from this indication of
2 very brief descriptions of the various members of the
3 Panel that all of us are from the private sector, while
4 we have been asked to serve on this particular Panel,
5 which has been set up by the Minister of the
6 Environment, we have been asked to do so giving our best
7 personal and professional judgment, and to give
8 independent advice on the subject to the Minister of the
9 Environment at the conclusion of the whole operation.

10 Let me introduce to you also the
11 Secretariat to the Panel who are invaluable assistants,
12 Mr. Bob Greyell, at the table over to my left, is the
13 Executive Secretary and at the back of the room, at the
14 table there, Ms. Susan Toller, an environmental analyst
15 is working also for FEARO and now assigned to this
16 Panel. These members of the Secretariat will be glad to
17 provide any information you may need regarding this
18 review.

19 The review is being conducted in
20 accordance with the federal Environmental Assessment and
21 Review Process, EARP, and the process ensures that the
22 environmental implications of proposals for which the
23 government of Canada, the federal government, has
24 decision-making authority are fully considered as early
25 in the planning process as possible before irrevocable



1 decisions are taken. I hope that some of you may have
2 had the opportunity to receive information on this
3 review process and on the proposal of Atomic Energy of
4 Canada Ltd. (AECL) at the open houses held in May and
5 June of this year.

6 The Panel has been asked, in part, to
7 examine the Nuclear Fuel Waste Management and Disposal
8 Concept, a proposal for permanent disposal of used
9 nuclear fuel deep in the granitic rock of the Canadian
10 Shield. This proposal would see the used fuel sealed
11 inside corrosion-resistant containers and placed in
12 holes drilled in the floor of a room inside a disposal
13 vault. The vault would in some ways resemble a deep
14 mine and would contain the used fuel in an area of
15 approximately four square kilometers.

16 I would like to say a few words about the
17 Panel's mandate. The terms of reference state that the
18 Panel is to review the safety and acceptability of the
19 concept for geological disposal of nuclear fuel wastes
20 in Canada as proposed by Atomic Energy of Canada Ltd.
21 In addition to the AECL proposal, we shall examine a
22 broad range of nuclear fuel waste management issues,
23 including long-term management, transport, and the
24 environmental, social and economic effects. We shall
25 look at approaches for nuclear fuel waste management and



1 disposal being developed elsewhere in the world. Since
2 site selection will not occur until the disposal concept
3 has been accepted as safe, the Panel will not consider
4 any specific sites, but it will review the potential
5 availability of sites and the methodology and criteria
6 required for site selection.

7 I would like to say a few words also about
8 what is not in the Panel's mandate, and therefore will
9 not be addressed in this review. The energy policies of
10 Canada and the provinces, the role of nuclear energy
11 within these policies, including the construction,
12 operation and safety of new or existing nuclear power
13 plants, fuel reprocessing as an energy policy, and the
14 military applications of nuclear technology.

15 Let me be quite clear, however, that the
16 members of the Panel are very much aware of the broader
17 concerns related to the use of nuclear materials and the
18 use of nuclear power for the generation of electricity.

19 The Panel has been urging a broader review
20 of the comparative environmental implications of the
21 various methods of generating electricity. I understand
22 that steps have now been taken to get such a review
23 underway, I hope in the fairly near future.

24 The purpose of scoping meetings such as
25 these, is to allow participants to identify issues that



1 need to be addressed in the Environmental Impact
2 Statement that will be prepared by Atomic Energy of
3 Canada Ltd. The Panel is not requesting the
4 presentation of opinions on the substance of the
5 disposal concept at this time. Public hearings will be
6 held later to discuss whether AECL's proposals are
7 acceptable. These scoping meetings enable participants
8 to assist the Panel in identifying issues that are of
9 concern and questions which need answers.

10 Following these meetings the Panel will
11 prepare draft guidelines for the preparation of an
12 Environmental Impact Statement. We will invite public
13 comment on these draft guidelines over a period of at
14 least over 30 days. After consideration of these
15 comments the Panel will finalize the guidelines, issue
16 them to AECL. AECL will then prepare the Environmental
17 Impact Statement, a process which I should emphasize may
18 well take a year to a year and a half, but when it has
19 completed that statement and submitted it to the Panel,
20 the document will be available for at least a 90 day
21 public review.

22 To assist in the evaluation of scientific
23 and technical matters, a Scientific Review Group of
24 distinguished independent experts has been established
25 by the Panel to examine the safety and scientific



1 acceptability of AECL's disposal concept. A report of
2 their findings and recommendations will be submitted to
3 the Panel, who will distribute it again to the public.

4 Once, after these many steps have been
5 taken, the Panel is satisfied that AECL has addressed
6 satisfactorily all the items identified in the
7 guidelines, we will hold public hearings. Participants
8 will be asked to discuss the acceptability or otherwise
9 of AECL's disposal concept in detail at this stage of
10 the review. The Panel will consider all comments
11 submitted to it and will prepare its report to the
12 Ministers of Environment and of Energy, Mines and
13 Resources.

14 The present scoping meetings will be
15 conducted according to the meeting procedures published
16 on August the 24th, 1990. We would appreciate it if
17 review participants would restrict themselves to the
18 identification of issues within the Panel's mandate. I
19 would ask that those registered to speak attempt to
20 summarize their concerns in 15 minutes unless they have
21 previously requested an additional 10 minutes. The
22 Panel will pay equal attention to written and oral
23 statements.

24 Participants who have registered in
25 advance will be asked to present their views to the



1 Panel and the Panel may then ask questions of
2 clarification following each presentation. Anyone who
3 would like to make a presentation to the Panel but is
4 not registered may speak to either member of the Panel
5 Secretariat, Mr. Greyell or Ms. Toller, any time this
6 afternoon. We will do our best to accommodate those who
7 have not registered, but this may depend, of course, on
8 the time remaining at the end of the meeting.

9 There are court reporters present who will
10 record the proceedings of each meeting and transcripts
11 will be made available to designated libraries. A
12 compilation of written submissions will also be
13 available from the Federal Environmental Assessment
14 Review office in Ottawa.

15 With this statement by way of
16 clarification of our role and our expectations and hopes
17 from you, I would now ask the first participant for the
18 afternoon to come forward to this table, please, to make
19 the presentation. I would call on Mr. Homer Seguin, of
20 the United Steelworkers of America. Mr. Seguin.

21 PRESENTATION BY MR. SEGUIN:

22 Mr. Chairman, members of the Panel, ladies
23 and gentlemen, prior to commencing the brief I want to
24 make a few preliminary statements that will clarify some
25 of the contents. The Preliminary statement is that our



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1 union, and it's on record, as being pro-nuclear under
2 certain circumstances with specific emphasis being
3 pro-safety in the workplace and to the environment. So
4 the brief is not presented in the context of an
5 acknowledged anti-nuclear position.

6 In addition to that our brief will try and
7 emphasize, and I will skip portions, after you have said
8 we'll pay equal attention to written as well as oral,
9 skip portions for time's sake in order to emphasize what
10 I think other people may not, and to that end we will be
11 -- not being argumentative about the roles of the
12 federal government or the AECB, because we will be
13 touching on the track record of these organizations,
14 because it is our firm belief that if we have the best
15 possible technology, with the best possible intent, and
16 we have poor legislation to cover it, and poor
17 enforcement and poor deterrence, as exists now, and as
18 the track record will show, we will be in trouble.

19 So some of the emphasis of our
20 presentation, if you will bear with me, will be examples
21 to try and persuade you that contained in the scoping
22 process should be the questions of what legislation
23 shall apply, what sort of agencies should be in charge
24 and responsible for ensuring that the so-called good
25 technology, if it really exists, will be carried out.



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1 To that end we would ask you to bear with us, because we
2 think this is probably one of the most important tasks
3 that you will be faced with.

4 So at the outset I wish to express thanks
5 on behalf of the United Steelworkers of America for this
6 opportunity to share some of the concerns we have with
7 regard to high-level radioactive nuclear waste and the
8 permanent safe storage of it.

9 As you probably know, the United
10 Steelworkers of America is the union which represents
11 more nuclear industry workers than any other union in
12 Canada. Over the past 50 years we have represented many
13 thousands of uranium miners and mill and refinery
14 workers in Ontario and in Saskatchewan. Although most
15 of our hands-on experience has been associated with the
16 so-called low-level radioactive exposures generated in
17 uranium/thorium mining, milling and refining, and to the
18 waste tailings generated in these processes, we have
19 learned the hard way about the disastrous worker health
20 and environmental damage caused by these industries. It
21 is our view that most of this unwanted harm is a direct
22 result of the mismanagement of these industries and the
23 serious inadequacies of the applicable legislation, its
24 policing and enforcement.

25 We have, likewise, learned through



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1 experience about the nightmare of Provincial and Federal
2 jurisdictional disputes, which we believe have seriously
3 retarded proper worker and environmental safety in this
4 industry. These are two of the major points which we
5 wish to address later in our presentation.

6 We are confident that considerable
7 attention will be paid by many groups and organizations
8 to the obvious issues which must be addressed when
9 determining how best to handle high-level radioactive
10 nuclear waste. For this reason our presentation will
11 devote less attention to site selection and other
12 obvious concerns, but will focus more directly on issues
13 such as the necessity for quality regulatory standards,
14 inspection and enforcement, which will be a critical
15 component for the proper site selection, construction,
16 operation and maintenance of any proposed high-level
17 radioactive nuclear waste storage facility.

18 Additionally, we believe the historic problems - and I
19 refer to those historic problems, they're a matter of
20 record, court challenges - the historic problems
21 associated with the Provincial-Federal jurisdiction
22 disputes as to which level of the government has
23 authority, must be resolved. And I will skip, but come
24 back to if I have time, some of those items, but leave
25 them for your perusal, site selection and construction,



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1 transport route and methods, and turn to the bottom of
2 page 4, to an issue that we think requires special
3 attention and may not be covered elsewhere.

4 Potential users of facility. The Panel
5 should address the question of who is to use the
6 facility, if and when constructed. We currently have
7 tons of this highly radioactive material in various
8 stages of storage in at least three provinces in Canada..
9 In addition, we have considerable more tons of other
10 radioactive material which have been labeled medium or
11 low-level radioactive wastes.

12 The Panel should decide, since all of this
13 material has potential for human and environmental
14 damage, just where the cut-off point is and what
15 materials would be destined for such a proposed .
16 facility. There is considerable opinion that although
17 we cannot reverse what has already happened, we can
18 prevent the accumulation of additional high-level
19 radioactive waste by curtailing nuclear activity. There
20 is even stronger opinion that we must not import such
21 material. This latter view is one which my
22 organization, the United Steelworkers of America, firmly
23 supports. The Panel must deal with these issues and
24 make recommendations.

25 Mr. Chairman, we think it would be very



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1 sad to build a facility for the purpose of importing
2 other people's wastes simply because we want some job or
3 something, and people should be concerned that although
4 they may get support to store what we have because the
5 material we have is a hazard and it does need a safer
6 storage capacity. We would support that concept, and
7 perhaps if we continue to have an industry, we have to
8 store our own waste. But surely we don't have to take
9 others and we must be very firm about that, and I think
10 that that's an issue that needs to be addressed.

11 There are many that believe that the
12 Federal Government, the AECL and the AECB have all been
13 supporters of Canada's nuclear industry and that, as
14 such, they may wish to develop an industry by importing
15 high-level nuclear waste. Additionally it is common
16 knowledge that AECL prides itself on its research
17 capability and accomplishments. Indeed the Candu
18 Reactor and the current experimental Slowpoke Reactor
19 are at the top of this pride list. We also know that
20 Canada has been selling and attempting to sell Candu
21 Reactors for some time. This activity has the potential
22 of considerable revenue and spinoff jobs. However,
23 there are many who are concerned that in their zeal to
24 make sales, the AECL and or the Federal Government would
25 offer to handle and store the radioactive waste produced



1 from other countries who purchase Canadian reactors.
2 This must not happen, and there's a topic, operating
3 mode, which I will skip for now and turn to page 7,
4 environmental protection.

5 Canada's track record of preventing
6 environmental damage from the by-products of the nuclear
7 industry is again a disaster. I refer specifically to
8 the so-called low-level radioactive waste generated over
9 past years, and in many cases in very recent years. The
10 Port Hope Refinery is a prime example of negligence in
11 the storage and handling of radioactive wastes. Indeed
12 three sites have been seriously contaminated with
13 radioactive elements, heavy metals and chemical waste
14 by-products from this nuclear facility. These wastes
15 have been allowed to migrate into the Great Lakes, other
16 water courses, into the air, into the communities and
17 farmlands. This scene is so serious that the Federal
18 Government promised action to remove these wastes from
19 the Port Hope area. A Federal Government Low-Level
20 Radioactive Waste Siting Task Force is currently
21 attempting to find an acceptable home for these and
22 other radioactive wastes.

23 The Bancroft Uranium Mining areas of
24 Ontario, now closed and decommissioned, are likewise
25 environmental nightmares. Contamination has migrated



1 into the air and water pathways and considerable concern
2 and activity is currently in progress.

3 Turning to another one. Saskatchewan's
4 Uranium City, now closed, was likewise a devastating
5 environmental disaster and has undergone extensive
6 cleanup operations. The current Saskatchewan
7 operations, the most modern in the world, have had over
8 100 spills in the last 10 years. The AECSB brags of
9 recent deterrents charging them for a major spill at
10 Rabbit Lake, and the maximum fine was imposed of
11 \$10,000. A great deterrent.

12 Perhaps the best example, the Elliot Lake
13 operations. These operations are likewise an
14 environmental disaster. I personally lived in Elliot
15 Lake for 10 years and worked there in trying to help
16 clean it up.

17 One would have believed that these
18 operations, which commenced in the late 1950's would
19 have benefited from the substantial years of world
20 experience with workplace and environmental hazards of
21 nuclear production and its generated waste.
22 Unfortunately this is not what happened.

23 Despite assurances to the contrary by the
24 government and the employers, 55 miles of lakes and
25 connecting streams from the first mine site to the Great



1 Lakes at the mouth of the Serpent River Harbour, were
2 contaminated with radioactive mine wastes, heavy metals
3 and chemicals. This caused the destruction of the
4 aquatic life and threats to animal and human health.

5 The AECB is currently studying the effects
6 of the uptake of radioactive contamination to plants in
7 the area, animals and humans. It's a research project
8 because they don't know the answers.

9 In past years, dam site selection and
10 construction and the treatment of discharges were almost
11 non-existent and very ineffective. In some cases, dams
12 were constructed of tailings and these frequently burst,
13 sending major spills downstream.

14 In fact, Mr. Chairman, members of the
15 Panel, if you visited Elliot Lake to see, you will find
16 that there is complete access to the general public to
17 all of the tailing areas except those currently in
18 operation. So people play on them, use them for target
19 practice, can take fill away from them. There's no
20 fence around them. There's no standards that require
21 it. So there's no violation, you will see the stan
22 (phoen.) rock tailings that remains built of tailings
23 because the companies are gone and there's no laws that
24 require anybody to correct them. Those are just a few
25 examples that I make to make the point about there being



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1 the mandatory need to study these issues.

2 It is only in recent years that site
3 selection and impervious dams, plus treatment, were
4 introduced on a meaningful scale. All of the foregoing
5 needs to be analyzed in order to ensure that none will
6 be repeated and that adequate safeguards will be in
7 place for this proposed project.

8 Legislative protection. This presentation
9 frequently refers to the track record of the government
10 or its agencies. Many may feel that this is not
11 germane. However, we submit it is extremely germane to
12 the issue at hand. I would therefore address it in some
13 detail.

14 The examples given, Mr. Chairman, members
15 of the Panel, are not intended, as I said before, to be
16 argumentative. They are factual. In fact, if they are
17 put on for decision-making, we and others will be
18 prepared to provide the proof. And there's lots of it
19 around. Lots of government studies. Lots of it to see
20 by yourself and the Royal Commission, the Ham Royal
21 Commission, lots of proof about all of what I'm saying.
22 They're intended to support the reasons I'm giving why
23 they should be included for analysis.

24 The Elliot Lake Ontario experience is a
25 worthwhile example. It is so because it's the most



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1 modern experience, so you would expect it is the best.
2 When the Elliot Lake uranium mines and mills first
3 opened in the late 1950's, the involved regulatory
4 agencies, the AECB, Labour Canada, Environment Canada,
5 and Ontario's equivalent agencies, all of them, all said
6 that no harm would come to the workers or to the
7 environment. We presented briefs to both the Provincial
8 and Federal governments - we as a union - about our
9 concerns as early as 1958, and were assured by the
10 experts of the day that we should not worry. In fact
11 they put these responses in writing. No fish would be
12 damaged, the environment would be protected. We were
13 constantly told by the regulators and the companies that
14 the technology of today - in the '50's - would overcome
15 the problems of previous years.

16 Despite these promises we now count well
17 over 200 radiation induced lung cancer victims by claims
18 that have been accepted in the proofs of the WCB, the
19 Workmans Compensation standards. Not any claim, but
20 stringent rules of Workmans Compensation Board, that
21 they were caused by the safe levels of the low-level
22 radiation in the mines of Elliot Lake. In addition
23 there are 200 plus more cases in the process, bringing
24 over 400 lung cancer victims which we claim were caused
25 by those safe operations.



1 The statements promising protection of the
2 environment are likewise now proven to be false. All
3 the lakes and waterways down stream of the mine tailing
4 sites were effectively killed by the waste discharges
5 commencing at the first mining operation in Elliot Lake.
6 The resulting losses by tourist and camp owners and the
7 general population is a matter of record.

8 The records will also show that the AECB
9 purported to hold the jurisdiction of authority over
10 both workplace and environmental safety and health, but
11 were conspicuous by their lack of activity in these
12 matters. Until about the 1970's, 20 years later, AECB
13 inspections were almost as rare as moose in downtown
14 Sudbury.

15 The records will also show that there was
16 little or no enforcement of workplace radiation
17 standards or of environmental protection against mine
18 waste contamination and spills. The Ham, Ontario Ham
19 Royal Commission supports these accusations and should
20 be referred to.

21 Indeed even conventional safety was
22 neglected. It wasn't only radiation. Perfect track
23 record. In fact it wasn't until 1978, over 20 years
24 after the commencement of operations, that Labour Canada
25 acknowledged it had neglected its jurisdiction but would



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1 now commence to enforce it. Not one inspection. Not
2 one order. Not one in over 20 years by the authority
3 that had the legislated authority for the safety of the
4 workers in the workplace.

5 During the prior years, the Ontario
6 government had paid some attention to conventional
7 workplace safety, however, they had no real or true
8 jurisdiction, and upon challenge by the mining
9 companies, would step gently.

10 It was sort of a joke. They were doing
11 the inspections, they were asking the company to comply,
12 but they couldn't order them to comply because they
13 didn't have the authority to do so.

14 In 1979 and 1980, Justice Canada
15 acknowledged, to us and others, that the AECEB
16 regulations were difficult to enforce other than to
17 withdraw licences, which was never done. In order to
18 overcome this nightmare of lack of proper regulations,
19 inspections and enforcement by the Federal Government,
20 our union was forced to negotiate progressive collective
21 agreement provisions and to work out legal arrangements
22 whereby AECEB regulations were amended to adopt Ontario
23 legislation in the areas of conventional safety. Even
24 today the legality of this remains a question mark if
25 challenged.



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1 In addition, when we reported -- when I
2 talked about forced to negotiate, Mr. Chairman, members
3 of the Panel, in our collective agreement in Elliot Lake
4 we were the first in mining to have the union choose its
5 safety inspectors, environmental inspectors and to
6 enforce the provisions, shut down workplaces if they
7 were unsafe.

8 The records will show that since we
9 introduced those provisions, not only has the working
10 environment improved, accidents have gone straight down.
11 So the workers can do a better job, it seems, than the
12 legislators. That would be matter of record too. That
13 would be a matter of record to be proven.

14 In addition, when we reported radioactive
15 dam breaches or waste spills to the AECB inspectors, we
16 were told to contact the Ontario Environmental Ministry,
17 who in turn would tell us they had no jurisdiction
18 inside the plant and we should therefore complain to the
19 AECB. Matter of record. Matter of record repeatedly.
20 In fact this historic pass-the-buck attitude was
21 detrimental to the promotion of good waste control
22 practices and the protection of the environment.

23 Our continuing experience with low-level
24 radiation in mining and with low-level radioactive
25 wastes from mining, although improved in recent years is



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1 still inadequate.

2 It is our contention that the regulations
3 providing for safety in the workplace and protection of
4 the environment remains totally inadequate. It must be
5 addressed.

6 Additionally it is our view that the
7 procedures for adequate inspections are still lacking
8 and that the penalties for breach of regulations are so
9 small that they do not provide reasonable incentive for
10 compliance with the applicable regulations, which in
11 fact, are not adequate to start with.

12 In the face of the proven track record of
13 AECB and other Federal Government agencies, our union
14 has extreme difficulty in believing the material they
15 now present on high-level radioactive waste storage.
16 Their claim that the technology for underground storage
17 is completely safe, that the method of transporting is
18 completely safe, and that workplace and environmental
19 safety is assured sounds all too familiar. As a matter
20 of fact it is identical to what was said about the Port
21 Hope Refinery, the uranium mines in Elliot Lake, Uranium
22 City and Bancroft when they commenced operations.

23 It is our firm belief that the AECB
24 regulations governing radioactive wastes have been, and
25 remain inadequate. This includes the regulations for



1 site selection, construction, operation and
2 decommissioning.

3 It is also our belief that the AECB
4 regulations with respect to worker safety are, and have
5 been totally inadequate. An ongoing example will
6 illustrate this concern. Just one of dozens. In 1977
7 the ICRP, in its publication #26 recommended that the
8 total of all radiation exposures be added so that no
9 worker received more than the maximum yearly dose of 50
10 mSv from all sources. Although most countries in the
11 world adopted this dose standard long ago, Canada has
12 not. In 1980, our union supported by others, launched a
13 strong ongoing lobby to have Canada accept the standards
14 proposed by this world expert body. However, to date,
15 we remain frustrated.

16 About two years ago, our efforts were
17 evidently successful when the Atomic Energy Control
18 Board agreed with our position, finally agreed. Earlier
19 this year I was informed by the Atomic Energy Control
20 Board that the radiation dose regulations that they
21 agreed to two years ago were tied up in the seven-tier
22 approval structure of the Federal Government and would
23 not likely be enacted until 1992, if then. 1992 from
24 1977 is a long time for Canada to keep pace with the
25 best standards in the world. This bureaucratic



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1 nightmare is just one in a long list of examples of the
2 difficulty faced in making improvements to AECB
3 regulations.

4 Now the ISCRP in February, 1990, Mr.
5 Chairman and members of the Panel, have said that they
6 were wrong about that 1977 standard and recommend it be
7 lowered some 60 per cent. So here we are in Canada not
8 able to accomplish 1977 standards when the same body has
9 already recommended a 60 per cent reduction. These are
10 facts. These are facts. And they will be supported.

11 We believe that the foregoing track record
12 is an important issue in the deliberations of this
13 proposed project. Errors could cause irreversible harm
14 for tens of thousands of years if we make mistakes such
15 as was made when people believed the government's
16 promises that worker's health in the environment would
17 be protected in the Uranium Mining Refining Industries.

18 Remember the regulators are the same
19 players.

20 We, therefore, recommend that the Panel
21 must consider this track record of the Federal
22 Government agencies and determine how they will change,
23 or alternatively, make recommendations that the
24 authority for regulating the industry lies elsewhere.

25 The Panel should also determine which



1 regulations will apply to the work force as it pertains
2 to conventional as well as radiation safety, and answer
3 the question as to whether said regulations will
4 adequately protect the overall safety and health of the
5 work force, the public and the environment.

6 The Panel must also evaluate the adequacy
7 of legislation which will be utilized to guarantee the
8 proper site selection and operation of the proposed
9 high-level nuclear waste site facility.

10 The Panel must also determine the adequacy
11 of legislation, regulating the safe transport of the
12 nuclear waste. Of equal importance to all of the
13 foregoing, is the question of proper inspections,
14 adequate enforcement and deterrents.

15 The Panel must also examine all aspects of
16 the jurisdiction in this field. The track record has
17 established that there are major disputes between the
18 provinces and the Federal Government about just who has
19 what jurisdiction and responsibilities when it comes to
20 workplace and environmental health and safety.

21 It is our contention that the seriousness
22 of this issue and the implication of errors being made,
23 requires a thorough examination of all areas which have
24 the potential of adversely impacting on any aspect of
25 the proposed high-level nuclear waste disposal facility.



1 I submit, Mr. Chairman, and members of the
2 Panel, if the question of which legislature will
3 guarantee that the properly drafted legislation, when it
4 comes, and if it comes, is enforced, and which type of a
5 deterrence will do that, and a guarantee that we will
6 have a change in the emphasis of what kind of
7 inspections, if that can't be answered, even if you have
8 a completely safe site, it won't be safe because there
9 won't be any inspections, there won't be any
10 legislation, there won't be any enforcement, and there
11 won't be any deterrents. So even if you answer all of
12 the other questions in the positive force, which I hope
13 you can, because we have a lot of waste we can store,
14 all of these need to be answered.

15 Mr. Chairman, am I out of time or can I
16 reverse and cover the other parts?

17 THE CHAIRMAN: You're okay for another
18 five minutes.

19 MR. SEGUIN: Okay. I won't thank you yet
20 then. I will go back to page 2.

21 THE CHAIRMAN: I misread my watch. You're
22 really out of time but can you just take a minute or
23 two. My mathematics wasn't too good. Recap those very
24 briefly.

25 MR. SEGUIN: Okay. Page 2, I have a



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1 reference there of two pages on site selection and
2 construction, and we think that this is a very important
3 part, the site selection, the construction. The site
4 selection should have some emphasis about the transport
5 routes. The site selection should not be, for example,
6 chosen to be on the other side of Toronto so that you
7 have to pass all the populated area. That's the point.

8 When you got to the transport routes and
9 methods, we think about evaluating the possibility of
10 water transport in the sense that most people originally
11 would say that's not very good. But if you had proper
12 containers that floated and so on and would not be
13 damaged it might be the way to transport the material
14 and needs to be evaluated.

15 And I guess the operating mode of course
16 is a few pages I have here about conventional hazards,
17 environmental hazards in the workplace. It talks about
18 when you choose a site, we have a lot mines that have
19 high radon. The gold mines are killing people from lung
20 cancer. Why? Radioactive contaminations. We don't
21 want to take a site that's filled with arsenic already
22 so that the workers get exposed. Arsenic, asbestocites,
23 radon, so that site selection should also take note of,
24 it's very important that the people that are going to be
25 working there for so many years are going to be subject



1 to mining hazards and they don't want to have already
2 chosen a site that's good for the store and it kills all
3 the workers.

4 And in summary, the overall thing, Mr.
5 Chairman, I emphasize, I know that some of the
6 conventional concerns about this will in fact get lots
7 of coverage.

8 We are in favor of finding a solution to
9 the wastes that Canada has developed because it's an
10 important thing. We think it has to be the best
11 possible solution and it has to take all of those things
12 into regard. If it's going to be the same actors,
13 continuing to act as they have acted, with poor
14 legislation, we want no part of it. We want no part of
15 it. We have to have proper legislation, we have to have
16 guarantees that it's going to be enforced and we got to
17 have -- you know, it's got to be somebody that -- it's
18 an organization that's concerned about the country, the
19 environment and the people, not about selling Candu
20 Reactors and that sort of concept.

21 And with that, Mr. Chairman, and members
22 of the Panel, thank you for your diligence and I hope
23 you pay special attention because this comes with a lot
24 of experience and a lot of dead friends behind it.

25 THE CHAIRMAN: Thank you, Mr. Seguin.



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1 I ask the Panel members if they have any
2 points they would like to clarify while we have Mr.
3 Seguin here.

4 I just have one brief comment then. As I
5 mentioned in my introductory remarks, a major thrust of
6 what we're doing at this stage is to develop the best
7 possible guidelines to ensure that we have a complete
8 and adequate Environmental Impact Statement from AECL as
9 the next part of the process.

10 The matters which you have been addressing
11 really apply elsewhere. I'm not entirely clear how they
12 could be fitted into the guideline structure, but we
13 have taken note of them nonetheless, and it may be that
14 they will be particularly relevant at a later stage, but
15 we thank you for bringing them to our attention now and
16 based on your experience.

17 MR. SEGUIN: Mr. Chairman, without being
18 argumentative, I could give you one easy solution to
19 that. You ask AECL which legislation are they going to
20 follow and as I've presented to you, and ask them which
21 inspectors are going to inspect and whether they're
22 under Ontario or Federal government because they operate
23 by both legislations, you know, themselves. Just ask
24 them which ones they intend to follow on and they
25 will have an awful hard time to present you with



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1 meaningful ones.

2 THE CHAIRMAN: Thank you. I was looking
3 for a suggestion from you out of that. Out of your
4 experience and how to weave it in here. Thank you very
5 much.

6 MR. SEGUIN: Thank you.

7 ---Mr. Seguin withdraws

8 THE CHAIRMAN: Could I call next on Gloria
9 Wilde, who will speak on behalf of the Parry Sound
10 Greens.

11 MR. THOMAS: Mr. Chairman, may I
12 substitute for Gloria, also representing Parry Sound
13 Greens?

14 THE CHAIRMAN: By all means. That was the
15 name I had, but if you found it more convenient to have
16 someone else present it, that's of course quite
17 acceptable to us. If you just make sure that we have
18 your name, sir, so that we have that recorded.

19 PRESENTATION BY MR. THOMAS:

20 Mr. Chairman, members of the Panel, ladies
21 and gentlemen, my name is Richard Thomas and the rest of
22 it is accurate. I am here as a member of the Parry
23 Sound Chapter of the Ontario Green Party.

24 I assume that the Panel has heard a lot of
25 presentations about specific technical problems and



1 worries, and we have all just experienced an excellent
2 presentation of the worries of the implementation of
3 protective legislation. Things like how do we get God's
4 signature on a document that he will indeed leave the
5 world undisturbed for a quarter million years or so even
6 at a depth of a thousand feet in the rock? I don't
7 intend to speak more about those.

8 I'm going to try to tie something to the
9 first of the permissible subjects according to what I
10 have here as the guideline, and that is establishing
11 criteria for determining safety and acceptability, and I
12 want particularly to speak about acceptability.

13 I want to argue that included among the
14 criteria for acceptability must be something or other
15 ephemeral, attitude. The attitude of the people in the
16 nuclear industry who design the disposal technology,
17 implement it the attitude of people responsible for
18 protective and enforcing legislation, the attitude of
19 the industrial world, whose appetite for power raises
20 the specter of continued nuclear technology, and the
21 attitude again of people in government who will be
22 making decisions.

23 It's entirely possible that what I have to
24 say is presumptuous and I suspect I risk offending you.
25 I don't like to do that. But then, as a matter of fact,



1 I don't like very much about these hearings. I resent
2 having to be here today, but I am compelled to be.
3 Perhaps you resent your having to be here. I am
4 compelled out of a no more than normal concern for my
5 children, my grandchildren, their children, their
6 children, their children, their children. This compels
7 me to grab at every chance to speak or act in their
8 defence. Quite possibly a similar motive has prompted
9 you people to accept your positions on this Panel, and
10 if that's the case you might be inclined to be patient
11 with my presumptuousness, necessary because I don't like
12 to risk offending anyone.

13 These hearings are 40 years late. That's
14 a matter of attitude. Had humane considerations guided
15 the builders of the first reactors and those who
16 sanctioned the building we wouldn't be here today.
17 There would either be a risk free method of containment
18 or there wouldn't be the reactors producing the fuel.

19 On that evidence I suggest it's quite
20 clear that the first builders and sanctioners were not
21 entirely, and not sufficiently, guided by humane
22 considerations, but rather they were tempted by power
23 and driven by vanity, and I very much fear that today's
24 decision makers are also tempted and driven by power and
25 vanity, and they've left us and you faced with an



1 impossible task. A task that traces to 40 year old
2 mistakes. The task of finding out whether we can indeed
3 take on the order of 15,000 tons of highly dangerous
4 material and tuck it safely into the deep rock.

5 Now perhaps we can tuck it safely in
6 there. I don't know. You don't know. No one knows.
7 It hasn't been done. And on that account I suggest that
8 there is a fraudulent element in your considerations and
9 in your function as a Board, in that you're called upon
10 to reach conclusions which cannot be verified within the
11 lifetimes of anyone now alive. That should touch on
12 attitude.

13 What we know, of course, is very little
14 compared to what is unknown. What we know is that we
15 have a quantity of highly dangerous material on hand.
16 Even our incomplete knowledge of radiation hazard
17 assures us that we are in danger, plus the abundant
18 evidence. Even that referred to by Mr. Seguin is enough
19 to assure us of that, but there's lots more. And having
20 that on hand, then we also know that we must, however
21 late in the day it is to come to solve the problem, we
22 must find a way to contain and to guard material which
23 is extremely hazardous as it exists, and which can be
24 become even more immediately dangerous in the hands of
25 people who are willing and able to use it for military



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1 purposes.

2 And I am afraid that a conclusion reached
3 by this Board, that a recommendation that it might make,
4 could be acted upon as if it represented a covenant with
5 God or nature, guaranteeing that material so disposed of
6 is perfectly contained and that therefore there is
7 nothing to stop us from proceeding to build a great many
8 more reactors. Absolutely serene in our belief that the
9 disposal of spent fuel is nothing more than a public
10 relations problem to be left safely in the hands of
11 - advertising agencies and solved through magazines and
12 television stations.

13 Nothing that I have read, nothing that I
14 have heard in the description of what this Board is
15 meant to consider and is willing to consider reassures
16 me as to the premise under which it operates. That
17 premise should be uncertainty, based on the evident fact
18 that nobody can promise perfectly safe containment of
19 the materials in question.

20 Now that uncertainty should not justify
21 any kind of, oh well, we must dispose of it so let's do
22 it this way, carelessness, and it certainly shouldn't
23 justify a fearful flurry which has us hurrying around
24 digging holes like dogs seeking to bury their poops in
25 the garden. What it should do instead, and what it must



1 do, making us mindful of the uncertainty always, is
2 force us to displace the vanity and the hunger for power
3 with humility and humanity. That's the premise that I
4 believe should guide the Board and should guide all of
5 us, but I'm not confident that it is and that it does.

6 There is a coincidence of the occurring of
7 these hearings with the application of Ontario Hydro for
8 approval of its 25 year demand supply program, and also
9 with further discussion about another reactor at
10 LePreau. This makes me suspect that these hearings
11 themselves are little more than a public relations
12 exercise designed to reassure us that our future and our
13 children's future is safe in the hands omnipotent and
14 conscientious people. Just having the hearings in the
15 past has served to do that. That might foster the
16 suspicion that it would do it again.

17 As for my suspicion, well, it tends to be
18 supported by the exclusion from consideration in these
19 hearings of the federal and provincial energy policies,
20 which I believe ought to be concluded -- included, and
21 concluded for that matter.

22 The dominating factor in nuclear
23 technology is massive amounts of energy. The dominating
24 factor in the consideration of nuclear technology is
25 uncertainty. I remind you of two incidents affecting



1 Enrico Fermi. The first, 1942 Field Stadium, Chicago
2 when he had the distinction of setting the world's first
3 reactor to work bombarding U235 with neutrons. There
4 was a journalist present who knew just enough on the
5 subject to be very uneasy and he asked, 'Dr. Fermi, are
6 you sure this is safe?' Sound familiar, Mr. Seguin?
7 And Dr. Fermi, who by all accounts was a beautiful man,
8 alive with energy and lust for life and a hunger and a
9 curiosity, looked at the reporter and said, 'There's no
10 danger,' and he set that reactor to its work.

11 Now I'm not going to claim that there's
12 any direct and exclusive connection between that moment
13 in Dr. Fermi's life and the second event that I want to
14 tell you of, which is his death, 12 years later at the
15 age of 53, from radiation poisoning.

16 I doubt if that one moment of activating
17 that reactor can be linked as the sole cause or even
18 necessarily a partial cause. The point to me is that
19 Dr. Fermi, Nobel Prize winner, of course, and one of the
20 giants of atomic science, back in the days when the
21 science had its giants, and yet he wasn't a pioneer,
22 barely a member of the second generation. He's on the
23 cusp, let's say, to the third generation of nuclear
24 scientists, when there had accumulated already a
25 substantial body of what passes for knowledge in the



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1 subject.

2 Despite that and despite his brilliance,
3 this man was sublimely confident that he could spend his
4 lifetime working with radioactive materials and he died
5 of radiation poisoning. There is always too much we do
6 not know. Uncertainty and attitude.

7 Some people might say that Dr. Fermi was
8 entitled to make his own decision. My own view would be
9 that whatever he found out wasn't worth his death at
10 that age in that way. It was, I guess, his decision to
11 - make, but the life, the security, the death of my
12 children and our children was not Dr. Fermi's to make.
13 That is not his decision.

14 Uncertainty. Uncertainty must be the
15 dominant factor in consideration of nuclear technology,
16 imposing an attitude of humility and a stance of extreme
17 concern.

18 The nuclear industry plays a lot of word
19 games. For several decades now they have asked us to
20 deliberate about acceptable safety. But is there anyone
21 in this room who has any difficulty accepting safety?
22 Ah, but of course they aren't speaking about safety are
23 they? They are speaking about danger, and they chose
24 this oblique way to address it so as to allay worry, to
25 introduce instead of the word "danger," the word



1 "safety." An unconscionable trick I would say.

2 Acceptable danger is quite different from
3 acceptable safety, isn't it? I undertook the risk of
4 driving here this morning, something on the order of 300
5 kilometers from my farm near Burks Falls and as a daily
6 thing I accept the risk of working in distant fields all
7 alone with old and worn out equipment, with a somewhat
8 old and worn out body for that matter too.

9 But these risks I read about. I read
10 statistics on farm and highway accidents. They're not
11 completely quantifiable, but they're understood.

12 There is no one, Mr. Chairman, not you,
13 nor member of your Panel, not the best and brightest of
14 AECL or throughout the nuclear industry who can read to
15 us any statistics on the acceptable danger of tucking
16 plutonium 239 a thousand feet deep in the rock. That
17 remains an unquantifiable, unidentifiable risk.

18 There are some clues, many of which were
19 spoken of earlier by Mr. Seguin. Listening to him I was
20 reminded of a set of numbers that I picked up from the
21 Ontario Ministry of Health just back in the spring,
22 relating to the incidents of various cancers in
23 Northeastern Ontario.

24 The incidence of lung cancer in men in
25 Northeastern Ontario is 24 per cent above the national



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1 average. In women it is 15 per cent above the national
2 average. The incidents of cervical cancer, 34 per cent
3 above the national average. Now I draw no conclusions
4 from that except that - and by that account it's a
5 somewhat dodgy place to live.

6 The causes, does it have to do with the
7 number of uranium activities in the area? Does it have
8 to do with ambient radiation in a part of the world
9 which does contain at some depth, uranium? Either way
10 it ought to cement us into an attitude of humility and
11 extreme concern.

12 Acceptable risk. Surely there are only
13 two factors which would make us willing to undertake
14 risk. One is if the danger is quantifiable, but the
15 gain is worth the candle. We stand to gain something
16 worth that risk. But what is it that will make it worth
17 an unquantifiable risk, an unknown degree of risk.
18 Surely if it is not a bent for suicide it could only be
19 the absolute necessity to undertake that, and so my
20 anxiety that this necessity we face, which is to find
21 one way or some way of disposing of 15,000 odd tons of
22 highly dangerous materials will serve, somehow, as
23 permission to the government, to industry, to the
24 nuclear industry, to proceed with the construction of
25 more reactors. That it must not do. The attitude here



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1 is that we are correcting the mistakes of 40 years ago,
2 not paving the way for an infinite future consequence of
3 more mistake.

4 Thank you, Mr. Chairman.

5 THE CHAIRMAN: Excuse me, I just want to
6 remind you that the 15 minutes which I think you had
7 requested has slightly exceeded.

8 MR. THOMAS: I was just about to thank you
9 for your indulgence, Mr. Chairman.

10 And also in addition to thanking you, to
11 sympathize with you for the job you've undertaken which
12 has, as I've suggested from my point of view, something
13 fraudulent about it, and certainly it's impossible to
14 arrive at any certainty.

15 Thank you.

16 THE CHAIRMAN: Thank you very much. Would
17 any members of the Panel have any questions they would
18 like to put to Mr. Thomas while he is here? Any points
19 of clarification? I think probably not. You have made
20 your position very clear. Thank you.

21 ---Mr. Thomas withdraws

22 THE CHAIRMAN: I would hope next to hear
23 from Brennain Lloyd of Northwatch.

24 PRESENTATION BY MS. LLOYD:

25 Thank you, Mr. Chair and members



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1 of the Panel. My name the Brennain Lloyd and I'm from
2 Northwatch. We're the regional environmental coalition
3 in Northeastern Ontario. We're a coalition of 20
4 environmental organizations around the region and
5 another dozen associated groups. We work in an area
6 going from the Muskokas, the Northern Muskokas to Moose
7 River Basin, from Nipissing Basin to Wawa Sault Ste.
8 Marie shore of Lake Superior.

9 We were founded in January of 1988,
10 because we saw our region as being one under a number of
11 pressures of very immediate and very critical nature.
12 The intrusion of the nuclear industry being one of
13 those, with the proposals now being entertained by
14 Ontario Hydro, now being put forward by Ontario Hydro to
15 build the new nuclear reactor on the north shore of Lake
16 Huron, with the Elliot Lake mining industries and the
17 tailings being left on site.

18 With the Low-Level Siting Task Force and
19 its expeditions throughout the northeast seeking a site,
20 a permanent storage site, they say for the low-level
21 radioactive waste currently abandoned at Port Hope, Port
22 Granby and welcomed corners.

23 The AECL proposal under review describes a
24 concept of nuclear waste disposal that involves burying
25 the radioactive waste in rock. In our rock, the rock



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1 we've built our lives upon, the rocks that we live with
2 our families and expect to do so for generations to
3 come.

4 The Canadian Shield is found substantially
5 in Northwestern and Northeastern Ontario and as
6 residents of the communities and rural areas of these
7 regions most likely to be the end receiver should this
8 concept be approved, the impact of this proposal on our
9 region and communities is direct and many faceted in
10 that any and all environmental, social, economic health
11 or other effects resulting from the eventual
12 implementation of this proposed concept, should it be
13 approved, will be lived and experienced here first hand
14 and into eternity.

15 I intend to address very specifically the
16 questions put to us by the Panel, that being input into
17 the guidelines for the writing of the Environmental
18 Impact Statement. But I think to do that we have to
19 look at the context that these guidelines are being
20 written in. We have to look at the global context, the
21 regional context, and we have to look at the context of
22 this discussion, that being a public decision making
23 process, a public hearing, where public participation is
24 not only expected, but should be guaranteed, and should
25 be held as one of the first and highest principles of



1 this process.

2 So the intent of the scoping meetings, and
3 I read this from the notices from the FEARO office, the
4 intent of the scoping meetings is for participants to
5 identify issues that should be included in the
6 guidelines for the preparation of the Environmental
7 Impact Statement. We intend to do just that, but it is
8 our understanding that in the Panel's writing of these
9 guidelines, the context, I would like to restate, is
10 critical in its decision-making in writing those
11 guidelines. So our intention is to assist the Panel in
12 its deliberations by describing those contexts.

13 Globally we're moving into the 1990s.
14 It's a decade that's been held as the turn around one,
15 as countries and communities take stock of environmental
16 crisis that surround them, and place environmental
17 protection and rehabilitation higher and higher on their
18 agenda. All this while the fuse of environmental
19 destruction burns shorter and shorter and shorter.

20 The 1986 report of the World Commission on
21 the Environment and Economy, Our Common Future, brought
22 into common usage, everyday usage, the term,
23 "sustainable development", and it also brought into
24 common usage a definition of that, the development that
25 meets the needs of present generations while also



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1 guaranteeing the right of future generations or the
2 ability of further generations to meet their own needs.
3 And I would suggest that that should be one of the
4 frameworks or one of the premises that your
5 deliberations start from.

6 So around the world we have a greening of
7 thinking. In step with this greening of global thinking
8 and in response to the tragedies at Three Mile Island,
9 Chernobyl, the dozens of Sellafields gathered around our
10 globe, one country after another has shut down it's
11 nuclear program over the last 10 years. The U.S.S.R.,
12 the Phillipines, Sweden, Austria, Yugoslavia, Belgium,
13 the Netherlands, Spain, Italy and now Great Britain, if
14 only by fiscal default. However, Canada seems bent and
15 determined to stay in bed with a radioactive elephant.

16 In Northeastern Ontario, the proposal by
17 AECL to bury high level radioactive waste is seen within
18 the context of the nuclear intrusion already present in
19 this region, and the history of experience communities
20 in the Northeast have had with the Atomic Energy of
21 Canada Ltd. Since the opening of the uranium mines in
22 Elliot Lake that intrusion, as I described, has been
23 repeated.

24 AECL, in their disposal proposal, are not
25 strangers to this region. A short decade ago they tried



1 to set up shop for exploratory drilling in Temiskaming
2 District. They were met with intense community
3 opposition, but they succeeded in setting up shop in the
4 town of Massey, where they proceeded with exploratory
5 drilling at East Bull Lake, again incurring the wrath of
6 the town of Massey. Then they vanished like a thief in
7 the night. It was after banishments, these banishments
8 from town after town, Madoc, Atikokan, Kirkland Lake,
9 Massey, Renfrew, and these are communities that I hope
10 the Panel will become familiar with, that you become
11 familiar with the histories and personalities and the
12 temperaments, the experience of each of those
13 communities because it's critical to your decision, and
14 how you proceed in managing this environmental
15 assessment hearing.

16 AECL had a change of head after they were
17 tossed out of community after community after community
18 and chose on their part to go ahead with the generic
19 concept, a generic proposal which is the one that you're
20 entertaining now, today, and I would suggest that it's
21 not because it's the best way to get the best decision.
22 It's because it's the only way AECL felt they could get
23 any decision to proceed at all.

24 I think we have to look at the context of
25 the discussions we're having in terms of public



1 decision-making and what are the principles of public
2 decision-making. What are the essential ingredients for
3 that to be fair and just and an effective process. One
4 worth all our time, both as the public and as members of
5 the Panel.

6 I would suggest that the principles are
7 fairness, openness, mutual respect, consideration of and
8 sensitivity to cultural minority and world view
9 differences, flexibility and commitment. That's on all
10 our parts, and would I suggest that on the part of the
11 Panel it's concomitant to looking at your terms of
12 reference, to looking at the issues ahead of you and
13 giving them their best shot -- giving your best shot in
14 writing the most comprehensive and inclusive terms of
15 reference for the Environmental Impact Statement,
16 guidelines for the Environmental Impact Statement that
17 is possible of you.

18 Environmental assessments, as one form of
19 public decision making, also have a particular list of
20 the essential ingredients and those are generally agreed
21 to be either the community consensus or a broad public
22 consensus, and those ingredients are, the exploration of
23 alternatives, the substantiation of need, the evaluation
24 of impact on the socio-economic, cultural bio-physical
25 environment and the incorporation into the assessment



1 process of due public process and consultation.

2 I think if we were to go back point by
3 point by point by point, and asses the process we're now
4 all engaged in, I think we would find more than adequate
5 room for criticism. That's not to say that we come to
6 criticize today to make your job more difficult, but to
7 make your future tasks more effective, more productive.

8 Looking specifically, if we go on then to
9 do such a critique, looking specifically at the
10 Environmental Assessment Review of Nuclear Fuel Waste
11 Management and Disposal Concept, and it's been termed by
12 the proponent, a critiques of the Federal Environmental
13 Assessment Review proposal to bury high-level
14 radioactive waste in granite brings us back again and
15 again and again to one key word, and that key word is
16 credibility.

17 The credibility of the EARP process is on
18 trial. Our credibility as a public interest group is on
19 trial. Should we engage ourselves in a process which
20 sells our communities and our regions down the river,
21 which we fear this one just might do.

22 The credibility of this Panel, with all
23 respect, is tied directly to your ability to conduct a
24 fair and just and comprehensive process that allows all
25 the critical matters, all the related matters, to be



1 addressed within the context of this hearing, and the
2 credibility of the nuclear industries is not within just
3 this hearing, just within this review, on trial. It's
4 on trial world wide, and I think it's a trial that
5 they're losing, or it's an assessment that they're
6 losing.

7 To date this review process has suffered
8 substantial lacks in credibility. Even in its name, in
9 that it already reflects an inherent bias, descriptors
10 such as "management" and "disposal" could be reasonably
11 expected in AECL's glossy brochures, but they assert a
12 lack of neutrality and a ready acceptance of the
13 proponent's arguments and logic when they appear as
14 title to the review process itself. This is not
15 disposal. Disposal means that the problem has been
16 taken care of. This is only transfer of the problem.
17 This is not management. Management would be storage,
18 not a pseudo disposal process or pseudo discussion.

19 And we bring ourselves to the discussion
20 of the narrow terms of reference, which I understand
21 have been excluded from our discussions today, but I
22 think if you will follow with me in our reasoning for
23 why those are
24 are central to the discussions, central to your future
25 deliberations, then you will bear with me.



1 The published terms of reference exclude
2 considerations of site, the energy policies of Canada
3 and provinces, the role of nuclear energy within the
4 policies, fuel reprocessing as an energy policy and
5 military applications of nuclear technology.

6 The subsequent and effective separation of
7 the undertaking from consideration of need and
8 alternatives and in fact from the physical environment,
9 consideration to the physical environment where the
10 undertaking will take place, make it not only a limited
11 assessment, but presumably a completely ineffective and
12 inadequate assessment.

13 As a hearing Panel it's your
14 responsibility to establish guidelines for the
15 Environmental Impact Statement which are sufficiently
16 broad to allow examination of all the relevant matters,
17 and it's our contention that the uncontested assertion
18 by AECL of the need for and alternatives to continued
19 production of high-level radioactive waste is a central
20 matter.

21 It is certainly not without precedent for
22 a Panel to set guidelines for the Environmental Impact
23 Statement, and thus the hearing, which exceed the
24 perimeters set in the initial letter of referral. I
25 would cite you an example of that. In the instance of



1 the Environmental Assessment Review Process of the
2 Military Flying Activities in Labrador and Quebec
3 Peninsula, in 1987, the letter of referral stated that
4 Canada's defence policy should not properly be within
5 the scope, and yet the EIS guidelines required, not only
6 allowed, but required, a section be included containing
7 project justification that would "describe the purposes
8 of the project and how it fit into international,
9 national and regional treaties, plans, agreements,
10 strategies and requirements."

11 So the precedent is there. I'm sure if we
12 search through other EARP guidelines we could find
13 others. That's the one I'm familiar with and it
14 provided an adequate example.

15 If we look specifically at the guideline
16 order from June of '84, which outlines the legislation
17 or the Act that we're operating under now, they state
18 clearly that a public review shall include an
19 examination of the environmental effects of the
20 proposal, an examination of the directly related social
21 impacts of those effects, and I will put it to you that
22 that's impossible to do with the very narrow terms of
23 reference that this Panel has accepted, and that the
24 challenge for you as a Panel is to stretch those terms
25 of reference and to see that they are appropriately



1 expanded to allow the kinds of discussions we need.

2 If we look specifically at the public
3 procession we've experienced in this review to date, we
4 see other difficulties. Unreasonably short time lines
5 have handicapped public involvement, inadequate public
6 notice given by the FEARO office, inconsistent
7 information being given by the FEARO staff with respect
8 to the process. With respect to the time constraints
9 the FEARO works within, but in particular, I would cite
10 an example of the scoping meetings that were to have
11 been held in Timmins, the only other scoping session
12 that was scheduled for this region. It's a large
13 region. We cover several hundred thousand square
14 kilometers. I don't think having two scoping meetings
15 within such distance was extravagant on any count.

16 After we received the notice of scoping
17 meetings with an attached coupon for registration as a
18 speaker, which indicated September 24th as a deadline,
19 Northwatch staff made inquiries of FEARO staff as to any
20 possible consequences for interested members of the
21 public should they not register by that date. The
22 assurance was that the only consequence was the risk of
23 there being too many speakers and the time being divided
24 accordingly, ie. that people would be given less time or
25 no time.



1 In reality what happened is those scoping
2 meetings were cancelled a few days after that deadline
3 and members of that district, or of that region, people
4 from that region have had to travel to this scoping
5 meeting and we understand that there would have been a
6 number of more people or we expect that there would have
7 been a number more -- there would have been even greater
8 representation from the public at that scoping meeting
9 had that scoping session not been cancelled as it was.

10 We discussed that repeatedly with FEARO
11 staff and to no avail, the session was scrapped. We
12 were told that it was due to no -- initially we were
13 told it was due to lack of public interest. As a public
14 interest group operating in this region I can assure you
15 that that was not the case. That there is public
16 interest. That's an area that's been explored already
17 by AECL as a possible receiver site and it was
18 unacceptable, unbelievable that that scoping session
19 would be cancelled in the manner which it was, after the
20 very limited notice that was given.

21 If we move on from there to another
22 credibility problem, that is the credibility of the
23 proponent.

24 In 1978, I'm sure you've heard, the
25 Vice-President of AECL went on record as saying that



1 high-level radioactive waste disposal was a public
2 relations problem rather a technical problem and they
3 have gone on from there.

4 The town of Massey remembers them
5 vanishing like thieves under the cover of darkness the
6 night before residents were going to stage a peaceful
7 protest at the AECL office. Perhaps more recent history
8 will illustrate their present state.

9 The January 12, 1988 memorandum with a
10 headline, "restricted commercial" introduced AECL's data
11 base on various anti-nuclear groups. The data base
12 itemized groups' background, objectives, strengths,
13 weaknesses, and interestingly, the threats they posed to
14 AECL and the opportunities for AECL. By AECL's
15 assessment, the first entry - we use this as an
16 example - the Canadian Coalition for Nuclear
17 Responsibility posed a threat to AECL in the form of
18 their, and I quote, "strong capability to critically
19 examine complex scientific data." AECL perceives that
20 as a threat when it comes from a public interest group
21 in this country.

22 While the credibility of the process is
23 not necessarily tied to the credibility of the
24 proponent, it will require all due care and attention on
25 the part of the Panel to see that that is not the case.



1 We move on to look at the rationale for
2 the concept. I think before we can set the guidelines
3 for the concept itself we have to look at the rationale
4 that the proposal is being put forward under, and I
5 think, following Mr. Thomas' remarks, I think it's a
6 matter of attitude. It's a matter of orientation and
7 how you look at these questions.

8 While the rationale of the concept
9 deserves detailed scrutiny in terms of its scientific
10 and technical merits, it also deserves scrutiny in terms
11 of the ethical aspects of such a proposal. The proposal
12 has two fundamental flaws. One, it dismisses what I
13 call the eternity factor. The fact that it must be --
14 and that factor must be kept first and foremost in the
15 discussion of long-term storage of high-level nuclear
16 waste.

17 Secondly, it proposes to impose waste
18 created by one community on another, hence dismissing
19 the responsible community from its actions, as it will
20 dismiss the responsible's generation from its actions.

21 AECL argues that irretrievable disposal is
22 attractive on the premise that it is not burdening
23 future generations, and that's in quotes. However, the
24 reverse consideration could be more than equally argued.
25 That imposing the waste on future generations is in



1 itself an onerous and lethal burden and the more
2 difficult monitoring and remedial measures are made by
3 locations and an "out of sight - out of mind" attitude
4 of the current proponents.

5 The greater these are integrated into the
6 proposal and its implementation, the greater the
7 handicap future generations will suffer in dealing with
8 any and all adverse consequences of the buried waste.

9 Perhaps the most fundamental error in
10 logic the proponent is making is their refusal or
11 inability to contemplate eternity, which is the lifetime
12 of this waste, and thus the time line for their
13 responsibility for it to all generations to come. I
14 think in our discussions, as we talk about the concept,
15 and we talk about the process and we talk about the
16 procedures, and we talk about the guidelines, we
17 sometimes forget to talk about the waste, and I think we
18 really have to stretch our minds to even begin to
19 entertain the consequences of placing these wastes
20 anywhere.

21 I think when we talk about plutonium 239,
22 which has a lifetime time of 24,390 years, that's how
23 long it takes to deplete itself by 50 per cent. AECL
24 will argue nuclear waste is great because it depletes
25 itself by half in a certain amount of time, but quite



1 frequently omit to say that with plutonium 239, that
2 amount of time is 25,000 years. Iodine 131, it's 17
3 million years. I think that if we separate ourselves
4 from the qualities of those wastes, the lethality that
5 two micrograms of plutonium dust inhaled will cause
6 massive fibrosis in your lungs and you will die within
7 hours or certainly within days or months. I think we
8 can't divorce ourselves from those realities at any step
9 in these considerations because that's what this
10 concept, that's what these hearings are about.

11 I'm going to move on to our guidelines for
12 the preparation of environmental impact statements. Am
13 I out of time?

14 THE CHAIRMAN: I'm just reminding you that
15 you have already used 20 minutes and I see many, many
16 pages. I suspect for the sake of five or six people
17 still wanting to speak I might have to ask you if you
18 can summarize them or to some extent leave us to study
19 them in great care. We have a written presentation.
20 Perhaps some combination of those could be done. But I
21 think in fairness to the others who want to speak, I
22 must remind you of that.

23 MS. LLOYD: Thank you. I will do that.

24 I just want to state though, before we go
25 into these, what we prepared is a preliminary set of



1 suggestions for inclusion in the guidelines, but I want
2 to stress that this is preliminary. The time lines have
3 been extremely short, we're a large coalition spread
4 over a great region and we will be submitting a final
5 draft to you by the end of the month.

6 I also want to stress that this is not our
7 preferred option. That we are opposed to this concept.
8 We are participating in the process at this point
9 because we want to make it the best process possible
10 since it is going ahead, but we would argue that --
11 - repeatedly we have argued in the past, and we would put
12 to you today that the option that AECL should be putting
13 forward to you for your consideration today is above
14 ground containment, at site, with monitoring in
15 perpetuity. That is the only conceivable method at this
16 time for limited risk storage of this waste, but that's
17 limited risks. So let's accept that there are risks,
18 the waste has been created, we would argue that we stop
19 creating the waste before we proceed with this
20 discussion of how we deal with current wastes or with
21 historic wastes, but I just wanted to clarify that
22 before I go in and I will be brief, in summarizing the
23 next pages.

24 What we've done is we have prepared some
25 guidelines or some suggestions for inclusion in your



1 guidelines for the writing of the Environmental Impact
2 Statement and they fall into a number of areas.

3 One is option selection. These are the
4 areas we feel need to be included in the Environmental
5 Impact Statement, and we feel that it's extremely
6 important that the proposal, that the concept be
7 described, in absolute and conclusive detail. When we
8 review AECL documents describing the proposal to date,
9 we see it's 500 meters or a thousand meters below the
10 ground. It's going to be titanium containment or it's
11 zirconium containment. It's going to be -- there's
12 going to be fuel reprocessing, maybe there won't be fuel
13 reprocessing. The proponent should be able to describe
14 their activity in absolute and conclusive detail, what
15 the activity is going to be and what the impacts of that
16 activity will be on the physical and socio-economic
17 environment of the regions affected, which are both the
18 host communities, what I would call -- with some
19 cynicism - the host communities, the communities where
20 the high-level radioactive waste is currently stored,
21 and the receiver communities, the communities where AECL
22 is proposing to move the high-level radioactive waste.

23 So we have a number of areas. One is
24 option selection. We feel that in the Environmental
25 Impact Statement, AECL should be required to describe



1 the other options that they have investigated. Describe
2 the rationale for selecting the deep rock disposal,
3 describe the decision-making and public consultation
4 process used to reach that decision, describe other
5 geological medias investigated, describe the research
6 steps which concluded in intrusive igneous being the
7 preferred rock form of those investigated, and so on a
8 similar format, but with more detail in some and less in
9 the others. We have a -- we think that AECL should be
10 required to describe their filling methods. The filling
11 materials that they will be using as barriers, the
12 various barriers in their concept proposal, the source
13 for the filling materials, the methods for transporting
14 the filling materials, the qualities of each of the
15 particular filler materials, be it sodium bentonite
16 clay, silica sand, whatever. Describe the source and
17 the transport and any environmental hazards, risks or
18 consequences that could be associated with the
19 introduction of the various filler materials into the
20 local environment, either en route or at the disposal
21 facility.

22 Similarly, they should be required to
23 describe in detail the containers they're proposing,
24 their manufacturing, their production, the materials to
25 be used.



1 Transfer and transport. Describe the
2 construction of each transfer site; the selected method
3 of transport, the projected costs of transporting wastes
4 to a centralized facility as compared to continued
5 storage at the point of origin, describe the benefits
6 and disbenefits of spent fuel waste being transported in
7 the disposal container as compared to being transported
8 in a specialized transport container and transferred to
9 the disposal facility as such.

10 Monitoring. There should be an extensive
11 description of the monitoring plans for each transfer of
12 the spent fuel waste, each of the transfer sites, the
13 transport routes and the interim storage at the disposal
14 facility, and in the disposal facility itself while
15 under construction, while it's being filled and after
16 it's been closed, describe monitoring plans for each of
17 those and the public decision making that's been
18 involved in establishing those monitoring plans and the
19 implementation of those, identify the monitoring, a
20 regulatory body, the parties required to review the
21 monitoring results, technical aspects of the monitoring
22 plan and the plans for making the information available
23 to the public, describe the emergency measures which
24 will be in place and so on. There are a number of
25 pages.



1 Risk assessment. Siting process. Surface
2 facilities. Describe the construction of each and any
3 of the surface facilities that will be in place at the
4 disposal site, including any of the manufacturing, any
5 of the production plans, the container manufacturing
6 plan, used fuel packaging plan, concrete plan, rock
7 crushing plan, disposal vault headframes and so on.

8 These should be examined with respect to
9 the design, the materials used, the containment systems,
10 the monitoring systems, the manner in which they impact
11 on the local environment should be evaluated, including
12 considerations of impacts on wildlife, species habitat,
13 flora, fauna, ecosystem integrity, watersheds adjacent
14 to our immediate water bodies, cultural social or
15 wilderness values, et cetera. Anticipated emissions
16 from each of the facilities, be they radioactive or
17 other hazardous materials used in some of the
18 manufacturing processes.

19 Reprocessing. If AECL is to include
20 reprocessing within their concept proposal they should
21 be required to describe that -- state that and describe
22 it conclusively and describe each aspect of it.
23 Similarly with the disposal facility.

24 They should also be required to describe
25 the accumulative effects of radiation in any particular



1 region, be it the transfer region, be it the host
2 region, the end receiver region. I don't like the term
3 host. It conveys something somewhat more friendly than
4 high-level radioactive waste would usually be associated
5 with or should appropriately be associated with.

6 Describe what studies. They should be
7 required to describe what studies have been done to
8 establish the accumulative effects of radiation
9 resulting from nuclear technology in each of the
10 geographic areas which could be considered as a possible
11 site for the disposal facility, a transfer site or a
12 transport route. They should not be allowed to look at
13 the impacts of one nuclear intrusion in isolation from
14 the others.

15 Thank you.

16 THE CHAIRMAN: Thank you very much, Ms.
17 Lloyd.

18 Are there any questions which the Panel
19 members wish to put with respect to this very detailed
20 presentation which we have heard?

21 I recognize that you have not had time, of
22 course, to go through all this in detail before us now,
23 but as I said at the beginning, your written statements
24 will be given equal weight to the oral presentations and
25 I thank you for going into so much detail with respect



1 to that which might be put as a guideline. While noting
2 your preferred option, I'm very much aware of that.
3 Thank you very much.

4 MS. LLOYD: Thank you.

5 ---Ms. Lloyd withdraws

6 THE CHAIRMAN: Our next participant will
7 be Doug Fraser of the Temiskaming Greens.

8 PRESENTATION BY MR. FRASER:

9 Good afternoon, Mr. Chairman and Panel.
10 I'm representing the Temiskaming Greens which is also a
11 chapter of the Ontario Green Party.

12 The Temiskaming Greens are very concerned
13 with any current or future decision regarding Canadian
14 energy policy. We take a global perspective and apply
15 this perspective in assessing policy decisions at local,
16 provincial and national levels, and we are therefore
17 deeply concerned with the future of the Canadian nuclear
18 industry and with the many associated environmental
19 implications.

20 Our community has become very
21 disillusioned with the past and current credibility of
22 both environmental standards and safeguards and with the
23 political decision-making process in general. This
24 attitude, I believe, is very well grounded. Our
25 community has recently been offered 900,000 tons of



1 low-level radioactive waste from the Port Hope and
2 associated regions and 25 million tons of Toronto's
3 garbage, and of course we've been assured that they
4 would also meet stringent environmental standards. We
5 don't feel very assured by that, and in fact in the past
6 two weeks, with current environmental standards and
7 monitoring and enforcement, we've seen 200,000 tons of
8 mine tailings get washed into the Montreal River. Also
9 listening to Mr. Seguin earlier, that doesn't give us
10 any further reassurance regarding the proponent of this
11 particular program.

12 In the early '70s, as was mentioned
13 before, we also fought and turned away AECL's efforts to
14 study the potential for high-level radioactive waste
15 disposal in our community and we see ourselves back here
16 again. We are also under no illusions because we are
17 fully aware that our community and Northern Ontario in
18 general will be the prime target for deep rock disposal
19 of high-level radioactive waste. Whatever the criteria
20 may be of this particular process, political reality is
21 going to dictate, that should this process go ahead, it
22 will certainly be in Ontario and it's very unlikely to
23 be near Metro Toronto. They won't even take their dirty
24 diapers.

25 Therefore, with respect, we offer our



1 comments to this Panel with many reservations, and do
2 not, in principle, support or endorse the present format
3 or the terms of reference of this process, and we would
4 like to highlight some of our concerns, and as you've
5 stated, and I respect some things you may not be able to
6 directly work on, but I would like address some of the
7 concerns about the process and the terms of reference.

8 We feel that there have been factors which
9 have limited public participation in this process.

10 Certainly we feel we have been given very short notice,
11 and like many public groups we don't have either the
12 personal or the financial resources to do a thorough
13 independent assessment of the environmental
14 socio-economic and technical reviews that would be
15 necessary.

16 Further we feel it is very irresponsible
17 of FEARO to not fully inform all communities which are
18 potential host sites for this facility. The public is
19 not likely to participate in or even be aware of such a
20 review if they are not made aware of the potential
21 ramifications for their community.

22 We feel then that the terms of reference
23 of these hearings are highly restrictive, and that is, I
24 think, a very fundamental flaw. The Temiskaming Greens
25 feel that it is not credible to consider the assessment



1 of a single option for waste disposition without first
2 assessing the nuclear energy option in it entirety, and
3 some specific issues. First, and foremost, I think the
4 siting of the waste facility, the review of any waste
5 management option must include site specific
6 assessments. Location influences many aspects of waste
7 management including political, environmental,
8 transportation and monitoring and socio-economic
9 factors.

10 For example, "out of sight out - out of
11 mind" facility has very real implications for each of
12 these aspects. In real estate we know that the three
13 most important things are location, location and
14 location.

15 Further AECL has specifically stated that
16 it intends to show that many potentially suitable sites
17 exist in Canada. Clearly this implies that potential
18 sites have been delineated and these communities should
19 be informed of their potential as waste sites and these
20 sites must be assessed as an integral part of this
21 process.

22 I think it's a very good analogy to what
23 we are also putting, or coming to terms with, in terms
24 of the Toronto garbage, so-called crisis, and as
25 residents of Temiskaming, although perhaps it was our



1 oversight, but we weren't overly concerned about
2 Toronto's waste management problem until we found out
3 that lo and behold we were a potential host community.
4 It makes one take notice of landfill and incineration
5 technology in a hurry.

6 Future waste generation. Any assessment
7 of waste management strategy must take into account the
8 potential future sources and volumes of waste production
9 and in fact again AECL implies that the storage option
10 is in part not viable in light of projected future waste
11 generations. So they are assuming, I suppose, that the
12 nuclear industry is going to carry on, and we're not
13 allowed to address that. They state that storage will
14 become more demanding as the quantity of fuel used
15 increases.

16 The nuclear energy option. High-level
17 nuclear waste is a symptom of a complex process, the
18 nuclear industrial complex itself. Just as it is not
19 medically wise to treat a symptom without first
20 assessing the nature of the disease, the cause, it is
21 not appropriate to assess nuclear waste without first
22 fully assessing the cause of this waste, the nuclear
23 energy option.

24 And again I think there's strong analogies
25 that we have already faced in Northeastern Ontario with



1 dying vegetation in the Sudbury area, which we're now in
2 the midst of. We treated the symptom, which was dead
3 vegetation locally, and we built a super stack and then
4 we cured that symptom and there is a little bit of scrub
5 coming back in the Sudbury area now. But of course the
6 problem has only been spread further out and diluted.

7 Toronto's garbage, again, we're treating
8 the symptom, Toronto's garbage, instead of the cause
9 which is the production, and I would put forth here that
10 I think again we are looking very narrowly at a symptom
11 instead of a much bigger issue.

12 Among other aspects such as assessment,
13 would encompass the many waste management problems, mine
14 tailings, low-level radioactive waste from reactor
15 decommissionings, et cetera, as a whole. This
16 reductionist approach only serves to underplay the full
17 scope of implications inherent in the pursuit of this
18 very high technology.

19 We also have concerns with objectivity, of
20 particularly the proponent, AECL and AECB, and we share
21 the concerns that have already been stated, and I'm sure
22 will be stated more eloquently again.

23 We also feel that your job will be very
24 difficult if funding is not provided by proponents to
25 facilitate complete and independent reviews of all



1 aspects of this proposal by other independent or
2 interested parties.

3 The concept. I think this is a
4 particularly major flaw, and I don't understand how it's
5 possible to take a problem as serious as waste, this
6 radioactive waste, and I think everyone agrees, even
7 AECL, that this stuff is not particularly nice, and to
8 decide what to do with it by examining a single option
9 seems absurd, frankly, to me. I don't like to consume
10 very much, but when I do, I do like to comparison shop
11 and know what my options are.

12 The Temiskaming Greens are therefore
13 fundamentally opposed to a review process which
14 considers only a single waste management option without
15 first having a full public review of all management
16 options. We also question both the rationale for such a
17 restriction on scope and the process by which this
18 option was selected.

19 There is a responsibility to future
20 generations, and this is my greatest concern. And what
21 we are doing is eliminating their options.

22 AECL implies that deep rock burial of
23 high-level nuclear waste is an option in which there is
24 no intention of retrieval and which ideally does not
25 rely for its success on long-term institutional control.



1 They also imply that this consideration is in the best
2 interests of future generations. What this option does
3 in fact do for future generations is completely
4 eliminate their options.

5 In simple terms what the proponent is
6 suggesting, is that future generations be restricted by
7 today's state of the art scientific and technical know
8 how, and I would put it to you, is this an ethical or a
9 prudent approach to nuclear waste management? This is a
10 critical question because so many decisions hinge on the
11 presentation of scientific facts. However, to answer
12 this most important question one need only review the
13 history of science, and I think much of what we are
14 seeing here, and the position of this single option is
15 based on this belief. And unfortunately I think public
16 acceptance of this belief that high tech science has
17 somehow now got all of the answers, or the most
18 important answers.

19 So would I like to give a very brief, if I
20 could, science lesson, a history lesson, and I teach
21 science so I like doing this kind of thing.

22 The following were all state of the art
23 positions held by the scientific community at some time
24 in human history, and most of them were considered what
25 we would call facts at the time.



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1 No. 1, the earth is immobile, flat and at
2 the centre of the universe. These facts were all
3 readily supported by scientific observations of the day.
4 In fact, I think one would have to be a little bit
5 absurd to think otherwise, based on what was known to
6 them at that time.

7 No. 2, the earth is 4,000 years old and
8 this was scientifically proven by a very prominent
9 scientist, Lord Kelvin. In fact it's kind of ironic
10 that that, I think, was disproven in light of the
11 finding of the discovery of radioactivity and the
12 implications of that heat source in the earth.

13 Third, quite distressing I find, all
14 psychologists, and I quote, "all psychologists who have
15 studied the intelligence of women recognize today that
16 they represent the most inferior forms of human
17 evolution and that they are closer to children and
18 savages than to an adult civilized man." They state
19 civilized man because of course humans -- uncivilized
20 and other cultures and ethnic groups of the world were
21 also considered much, much inferior to white caucasian
22 males. This was published in the leading scientific
23 journal, France's most respected journal of anthropology
24 by a leading scientist and a student of the very
25 well-known Paul Broca in 1879. So we're only talking



1 about a hundred years ago. And I know some people may
2 think well this is the old days when science was still
3 in its infancy so let's come up-to-date a little bit
4 more.

5 The theory of plate tectonics is held by
6 few credible geologists. The earth's crust, although
7 subject to modest activity such as earthquakes and
8 volcanoes is fundamentally composed of a single solid
9 crust. This was the position of the scientific
10 community up to the mid 1960's and plate tectonics was
11 taught to me in grade 11, in geography, I believe, in
12 1973.

13 The above statements place scientific
14 knowledge in an important context. The context of time.
15 We will be making a grave error indeed if we are to
16 assume that no future knowledge is likely to uproot
17 current theories. What we must realize is that our
18 ability to make predictions and extrapolate into the
19 future with today's science is severely limited by our
20 knowledge.

21 When in our recent past would we have
22 considered the influence of global warming on the
23 long-term disposition of radioactive wastes in arctic
24 ice sheets, and I'm quite curious. I'd be interested to
25 know if global warming was considered in the 1977



1 assessment of that potential option.

2 Even more recently than the last example
3 above, CHAOS theory has resulted in a fundamental shift
4 in the scientific investigation and interpretation of
5 data in virtually every scientific discipline from
6 astronomy to zoology. In particular CHAOS theory has
7 caused the scientific community to reassess the
8 predictive abilities of science itself, and this theory
9 is something which is the latest rage. I suppose
10 science in the '80s will be known more than anything
11 else for CHAOS theory.

12 Clearly, the sealing off of future options
13 based on today's knowledge is not to be advised
14 especially in light of the complexity of nuclear
15 phenomena and the time frame involved.

16 In conclusion I would state that the
17 Temiskaming Greens have found many weaknesses in the
18 present FEARO scoping process, as well as weaknesses in
19 the concept proposal itself. We feel that the most
20 serious flaws with the current process include
21 inadequate public participation, an extremely narrow
22 scope, and an inappropriate concept proposal.

23 The present format of these proceedings
24 only serves to restrict both public awareness and input,
25 and will result in further mistrust and lack of public



1 confidence.

2 The Temiskaming Greens strongly recommend
3 that the FEARO Environmental Assessment proceedings
4 dealing with AECL's deep rock burial proposal be
5 discontinued at this time. Instead we propose the
6 initiation of a much broader range of public inquiry
7 into future Canadian energy policy. Although we
8 recognize the need to properly manage the high-level
9 radioactive waste that currently exists, we feel it is
10 only logical to first address the larger issues which
11 directly influence the long-term creation of these
12 wastes as well as the many -- the many other and varied
13 implications of alternative future energy options.

14 Thank you very much, Mr. Chairman and
15 Panel.

16 THE CHAIRMAN: Thank you, Mr. Fraser.

17 I feel I should draw to your attention,
18 because the scope of the Panel's mandate has been
19 referred to by yourself and others, to which I think are
20 corrections to some of the views held.

21 I accept that the scope of our mandate is
22 not as large as many people would wish it to be. It is
23 not, however, quite as narrow as some have described it
24 as being.

25 In my opening remarks I said that our



1 terms of reference include the review -- a review of the
2 safety and acceptability of the concept of deep
3 geological disposal, the AECL prospect, but in addition
4 to this we shall examine a broad range of nuclear fuel
5 waste management issues. It is broader than just the
6 deep geological disposal which AECL has been spending
7 its time on and those other issues in terms of long-term
8 management, transport, and environmental, social and
9 economic effects. So that it is somewhat broader than
10 you had mentioned.

11 I would also draw your attention to the
12 fact that again, as stated in my opening remarks, it is
13 my hope that we shall soon see the beginnings of a
14 review on the broader questions of the generation of
15 nuclear energy in Canada. That has not been assigned to
16 this Panel, but I have some hopes that that may get
17 underway before too long.

18 Are there any questions which any of my
19 colleagues wish to put to Mr. Fraser while he is here on
20 the presentation he's made?

21 Thank you very much.

22 ---Mr. Fraser withdraws

23 THE CHAIRMAN: We now have an option over
24 which we can have some control and that is whether you
25 would like to break for 10 minutes to get a cup of



1 coffee and stretch your legs and perhaps get your minds
2 refurbished.

3 I still have one, two, three, four people who
4 have been asked to speak. All of them have asked for 15
5 minutes, not the longer amount, and I would suggest that
6 if you would find it useful to get a small stretch of
7 the legs and a cup of coffee for 10 minutes, that is we
8 will then start again sharply at 4:00 o'clock and hear
9 the next of the participants. Would that be acceptable?
10 Good.

11 ---Recess at 3:45 p.m.

12 ---On resuming at 4:05 p.m.

13 THE CHAIRMAN: Ladies and gentlemen, I
14 wonder if you could take your seats so we can get
15 started again. I'm afraid my credibility is suffering
16 very seriously from the fact that I said we'd be back in
17 10 minutes and I didn't even get outside the door to get
18 a cup of tea until past that 10 minute time due to other
19 interventions. I apologize for that, but I would like
20 to move ahead now to continue hearing from the other
21 participants in this afternoon's session, and I would
22 call next upon Terry Graves of the Temiskaming
23 Environmental Action Committee.

24 PRESENTATION BY MR. GRAVES:

25 Mr. Chairman, members of the Panel and



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1 ladies and gentlemen, TEAC is a nonprofit public
2 interest environmental organization in the district of
3 Temiskaming. TEAC has functioned as an environmental
4 group since about 1978.

5 I'm not pleased to be here. I too believe
6 this entire process is a public relations exercise. I
7 find it sad to realize that I am participating and
8 giving credibility to a process, the purpose of which is
9 ultimately to see that nuclear fuel waste is transported
10 to and disposed of in Northern Ontario. I am sure I am
11 safe in saying that if you ask any Canadian what he
12 would least like to see come to his town next to Brian
13 Mulroney, he would say nuclear waste.

14 In regard to the process, and please
15 forgive me for being facetious, frankly, nuclear waste
16 scares the hell out of me.

17 In regard to the process, after a few
18 years of relative inactivity on this issue, we've
19 suddenly been inundated with information and demands by
20 both AECL and FEARO in the last several weeks. Although
21 AECL claims there is no rush to site a facility, there
22 seems to be a panic to get these scoping sessions over
23 with.

24 Mail arrives stating we have a few weeks
25 in which to apply for funding, to make up our minds



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1 where and when we will speak. The short time lines,
2 dismal funding and general confusion about locations and
3 dates have caused many people to want nothing to do with
4 this process. Sessions are cancelled and times and
5 locations for presentations are changed without decent
6 notice. The public seems to be the least important
7 component in the process.

8 There seems to be far more that we are not
9 permitted to say and far more than there is that we are
10 allowed to say. The name may be FEARO but the style is
11 pure AECL.

12 The Temiskaming Environmental Action
13 Committee is very concerned about the terms of reference
14 for this review. Surely we can only discuss a concept
15 for disposing of such wastes in the context of a larger
16 discussion that addresses other disposal options.

17 Reduction of the amounts of waste and if
18 we should stop producing the wastes altogether. This
19 broader discussion is long overdue; however, it is
20 contrary to the interests of nuclear industry, so it
21 cannot be allowed. And with respect, Mr. Seaborn, we
22 had a discussion several years ago in Ottawa about a
23 broader review. At that time you said you expected it
24 shortly and today I'm hearing that you expect one
25 shortly. I don't have any confidence that it will



1 happen. It is against the interest of the industry.

2 TEAC is concerned with some of AECL's
3 stated reasons for the necessity of pressing ahead with
4 deep rock disposal. AECL declares that we must develop
5 a means of disposing of nuclear waste so as not to
6 burden future generations.

7 Those wastes are currently safely stored
8 on site at reactor stations and can be stored in that
9 manner for many years. AECL also knows that wastes
10 resulting from the creation of that so called high-level
11 waste, wastes from the front end of the fuel chainlike,
12 the well over one hundred million tons of radioactive
13 mine tailings, such as those at Elliot Lake, lie exposed
14 to the environment while nothing is done to dispose of
15 them. AECL accepts no responsibility. It's for future
16 generations to deal with.

17 The nuclear industry is imposing a
18 tremendous debt load on future generations in this
19 province. Eighty per cent of Ontario's debt is the
20 nearly \$30-billion owed by Ontario Hydro. This debt
21 requires \$2-billion per year in interest payments.
22 Ontario Hydro's new 25 year plan includes 15 more
23 nuclear reactors for Ontario and comes with a price tag
24 estimated to be as high as \$200-billion. The nuclear
25 industry, including AECL accepts no responsibility for



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1 the burden that will create on future generations.

2 I don't feel it's even worthy of
3 discussing TEAC's position in regard to the importation
4 of waste from other countries. We are against it. We
5 are against seeing a facility in the north and we are
6 against bringing waste from Southern Ontario, from other
7 provinces, or from other countries to the north to
8 dispose of them.

9 TEAC's position is that any attempt to
10 develop a nuclear waste disposal concept should exclude
11 the participation of AECL. AECL is the developer,
12 promoter and primary marketing agency of nuclear power
13 in Canada. Should no effective disposal method be
14 developed AECL stands to be a big loser. It certainly
15 should not be the lead agency in developing and now
16 promoting the disposal concept. It is our position that
17 AECL's involvement invalidates the concept at this time.

18 Following this Panel's first session on
19 October 22nd, 1990, I watched an evening news report on
20 which AECL's Dr. David Torgenson appeared. The newsclip
21 featured Dr. Torgenson stating, and I believe these were
22 his exact words, "The ethics of the issue dictate that
23 we must get on with the job." My experience with AECL
24 has been that they only talk about ethics when they are
25 preparing to do something unethical. I cannot see what



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1 can possibly be ethical about taking an extremely
2 hazardous by-product of a process which exists primarily
3 for the benefit of one area, in this case the urban
4 industrialized south, and forcing another area, the
5 north, to accept the disbenefits in the form of
6 long-term risks. The major criteria for the north being
7 targeted is not our Canadian Shield, but rather our
8 political impotence.

9 Hearing AECL tout ethical considerations
10 is really quite hilarious. Remember these are the
11 people who brought us the infamous uranium price-fixing
12 cartel in the '70s. A criminal activity, price-fixing.
13 These are the people who had no qualms about dealing
14 with the generals of Argentina, the South Korean regime
15 and Ceausescu. Some of the dealings were replete with
16 pay-offs with millions to an Israeli agent with money
17 transferred through an Italian bank for laundering
18 purposes.

19 Eleven years ago AECL came to the district
20 of Temiskaming, cranked up its public relations machine
21 and held in-camera sessions with municipal politicians
22 in an attempt to gain support for their intent to
23 conduct research into what they felt was a suitable site
24 near Kirkland Lake. AECL was told that nobody opposed
25 research and that if they would provide a written



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1 guarantee that they were only going to do research and
2 would not consider the site for disposal, then
3 opposition would cease. They refused to provide the
4 guarantees.

5 A few days before a vote by a
6 district-wide municipal body was to take place, an
7 earthquake occurred north of the district. We had been
8 continually told by AECL about the tremendous stability
9 of the area. The vote was 43 to 1 against allowing AECL
10 to conduct their work. The one individual who voted in
11 favor later stated that he misunderstood the question.
12 He thought he was voting against it.

13 A fewer years ago, I attended a session at
14 Canadore College in North Bay, at which a key public
15 relations spokesperson from AECL Chalk River was trying
16 to tempt students into applying for jobs with AECL,
17 telling them about the wonders of nuclear power and how
18 extremely good for them radiation is. At one point in
19 the presentation he produced a piece of uranium ore,
20 stroked it and blew kisses at it and called it his
21 wonderful, wonderful magic genie. A century ago, it
22 would have been snake oil or magic elixir. This is not
23 science that AECL's involved in, it's a combination of
24 nuclear hucksterism and cultism.

25 I'm sure you're familiar with the



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1 resistance that nuclear waste disposal faces in the
2 north. The opposition is not dissipating, it's
3 strengthening. On October 1st, 1990, the town nearest
4 to where I live, Elk Lake, voted overwhelmingly against
5 a proposal to dispose of low-level radioactive waste
6 from the Port Hope area. It was the largest voter
7 turn-out in the history of the town. Many other towns
8 in the north are experiencing the same process with the
9 same kind of results.

10 The only reasonable direction in which
11 this Panel can take this process is to a broader format
12 which allows for discussion of the very need to begin
13 reducing the volume of waste created. That may not be
14 what the industry wants to hear about, but it is most
15 assuredly what the public wants to talk about.

16 I live on the Montreal River, nine miles
17 downstream from Elk Lake. Until Saturday, that river
18 ran clear, clean and beautiful. Almost everyone in the
19 area drew their drinking water from the river. I fished
20 in the river for years and I have long been concerned
21 about large number of mine tailing ponds in the
22 district, and have met with and talked to Ministry of
23 Natural Resources and Ministry of the Environment
24 Officials, expressing my concern about the gradual
25 leaching of the tailings into the river. I was



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1 guaranteed numerous times that there was nothing to
2 worry about. Last year I had a well drilled. On
3 Saturday morning past, I awoke to find a great gray
4 toxic blob, now estimated at over 60 kilometers in
5 length, resulting from a tailing dam burst had reached
6 my home. This could never happen. I had guarantees.

7 I think I would right now like to propose
8 what I think is a viable means of disposing or of
9 containing these radioactive wastes that we're talking
10 about.

11 Out of sight and out of mind is not good
12 enough for us. We're constantly inundated with plans to
13 bring waste to the north. Let's get it the hell out of
14 Southern Ontario, let's get it to the north. We don't
15 have to monitor it as closely, the costs are going to be
16 reduced. Put it beside Highway 401. Containerize it,
17 package it and make sure that it can't leach. There it
18 will be monitored closely. There it will be obvious to
19 everyone what they are doing. Let people drive by it
20 every day and see the results of their consumerism.
21 Don't bury it in Northern Ontario.

22 I believe you have a very difficult task.
23 I hope that you're listening to the public, not the
24 vested interests. I hope that you're understanding that
25 we have real concerns and that our concerns go much



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1 beyond this generation.

2 Thank you very much.

3 THE CHAIRMAN: Thank you, Mr. Graves.

4 Any questions that my colleagues would
5 like to put for clarification? Dr. Wilson.

6 DR. WILSON: I take it then that your last
7 remarks mean that you would opt for above surface
8 monitoring --

9 MR. GRAVES: Certainly above ground.

10 DR. WILSON: -- in a highly populated
11 area?

12 MR. GRAVES: Well, I think that you're
13 going to have a great deal of difficulty getting it into
14 an extremely highly populated area.

15 DR. WILSON: But I'm asking what you
16 think.

17 MR. GRAVES: I think that it should be
18 within sight of the Highway 401 in Southern Ontario.
19 Any other questions?

20 THE CHAIRMAN: Thank you very much.

21 MR. GRAVES: Thank you.

22 ---Mr. Graves withdraws

23 THE CHAIRMAN: We will hear next from
24 Kathy Hakola and Ambrose Raftis with a joint
25 presentation, I believe.



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1 PRESENTATION BY MS. HAKOLA & MR. RAFTIS:

2 MS. HAKOLA: Mr. Chairman, members of the
3 Panel and participants. I had originally asked to speak
4 at the Timmins location and was assured that that wasn't
5 possible, and the similar problem was occurring with my
6 colleague, Ambrose, so we've agreed to share this spot
7 and discuss our concerns.

8 I'm not a nuclear scientist and I'm not a
9 technical expert so I wondered how I might express the
10 feelings and the worries that I have about this project,
11 and still talk within the realm of things that I know
12 something about, and as an elementary school counsellor
13 I get regular doses of children's logic and their own
14 particular insights and their peculiar ways of looking
15 at things, especially their logic. And it occurred to
16 me that this might give us a fresh look at the problem
17 facing us here today.

18 If I could remind you of the story the
19 Emperor's New Clothes. It's an old children's story
20 that's been passed on from generation to generation, and
21 in that story the child's logic and the child's honesty
22 and his own wisdom didn't allow him to accept the farce
23 that the adults, for their own, not so noble reasons,
24 had decided to endorse, and he said the unspeakable,
25 that the Emperor is naked. And I think it's a similar



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1 situation facing us here this afternoon at this session.
2 That we have the nuclear industry telling us that
3 nuclear power is cheap and it's clean, when any well
4 informed child could tell us again the Emperor is naked
5 and it is neither of these things. That it's madness to
6 keep generating mountains of waste that is so toxic as
7 to pose a threat for possibly thousands of generations
8 to come.

9 Underground disposal just encourages the
10 production of such waste and gives a green light to the
11 nuclear power industry in Canada. The issue facing us
12 at this scoping meeting is not so narrow as defined in
13 the terms of reference. Is it an issue of ethics. The
14 ethics of environmental degradation caused by this type
15 of power production. The ethical concern is further
16 highlighted because effective alternatives are well
17 within our reach at this time.

18 We have likely all seen that beautiful
19 television ad where a grandfather and his granddaughter
20 are sharing a tree planting experience and they're
21 telling us again that nuclear power is clean and cheap.
22 Such energy is relatively cheap because it's heavily
23 subsidized by the taxpayer, and the so-called beneficial
24 effects on acid rain production are minimal.

25 While the mining and the processes



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1 involved in uranium production have left the many tons
2 of waste tailings that we've heard about today and we
3 are also told that there's enough waste in Ontario,
4 Saskatchewan and the Northwest Territories to cover the
5 Trans Canada Highway from Halifax to Vancouver, two
6 meters deep. And since uranium tailings change into
7 radium 226, that is more lethal, then there's a
8 possibility that the projected damage will increase over
9 time, and if uranium decays over billions of years, then
10 what computer model could accurately predict the kinds
11 of problems that we will encounter with such waste?

12 The literature offered by AECL is written
13 in the same way as the television ad and it leads us to
14 believe that science can predict all of the difficulties
15 with this waste and that it will protect us with
16 security. It's little more than glossy propaganda and
17 in this booklet that they have put out they assure us on
18 page 14, if you may have seen that, that a spent fuel
19 bundle will lose 60 per cent of its radioactivity within
20 an hour of being taken out of the reactor. So that
21 makes it sound relatively benign and not too
22 threatening. But they don't say that the same fuel
23 bundle, for a person standing within one meter of it
24 would give them a lethal dose of radiation in 20
25 seconds. So if the industry has to resort to such



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1 tactics as that we might well wonder what are the real
2 facts.

3 We're all going through this process for
4 our own reasons. I have nothing to gain by being here
5 and it's with some personal cost that I participate
6 here, as with my fellow participants, but I have much to
7 lose if waste burial proceeds and the nuclear industry
8 flourishes, and as we move to the darkness of winter in
9 environmental terms I think we all could provide a spark
10 to find a reasonable solution to our conflicting needs,
11 and I hope that you individually can see the opportunity
12 that's presented to you.

13 You have your own reasons for being on
14 this Panel and you could decide to conduct yourself as
15 an agent of the government, the same government that
16 chose to ignore the Committee Report from the House of
17 Commons in 1988, that said we should have a moratorium
18 on building any more nuclear plants in Canada, or you
19 could seize the opportunity to make a significant
20 difference in the direction that we take and the future
21 of our environment.

22 So I would hope that in your moments of
23 solitary reflection that you could realize this
24 opportunity and make a powerful statement against any
25 process that makes nuclear energy seem what it's not,



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1 clean and cheap, and show it for what it is, deadly.

2 Successive generations are always very
3 critical of previous policies and decisions and any of
4 you who have children or teenagers know that's a fact.
5 And they might well wonder did we learn nothing from the
6 old story, the Emperor's New Clothes.

7 I hope that you will make a decision to
8 enrich our environment by not having it further
9 degraded, and to accomplish this I certainly agree with
10 Terry Graves that we need an above ground storage where
11 it could be monitored and it would be a monument to the
12 reminder of the bad old days when we let an industry
13 create tremendous amounts of waste just because we
14 bought the myth that somehow such wastes could be
15 managed.

16 Where is our child's logic when we need
17 it?

18 And Ambrose is ready to continue, I guess.

19 MR. RAFTIS: I'm here under the same
20 problems that other people had. I heard about it too
21 late and didn't have enough time to get what I would
22 like to get prepared for it, so I will start off with
23 this.

24 The EARP process is meant to identify
25 unwanted effects before they occur and determine



1 appropriate mitigating measures.

2 The public have never been asked whether
3 or not they want to be involved in the nuclear option.
4 This decision has been made by the industry and
5 government but paid for out of public treasury. We are
6 now being asked to supply input toward one of the major
7 problem areas that the industry has created and left
8 unsolved for some 40 years.

9 The other problem areas, in short are the
10 millions of tons of radioactive mine tailings which
11 we've heard about, and also the significant leakage of
12 radioactive material from operating deteriorating power
13 sites and the cost overruns of nuclear power, which in
14 some areas, when they try to dispose of the nuclear
15 power sites in England they discovered that, in fact,
16 the cost of nuclear power is up to three times what they
17 were being told and which they were being charged at the
18 utility rate. So that they were unable to actually
19 dispose of the reactors. Margaret Thatcher wanted to
20 move them into the private sector and was unable to do
21 that because of the subsidies that were being realized
22 by it.

23 The Panel should not be surprised that the
24 utility is being levelled with far reaching criticism.
25 After all, this industry has operated since its



1 inception aloof from the concerns of any public review
2 process. The industry even today, after the melting of
3 the cold war, operates in an economic structure void of
4 any rational economic or environmental assessment
5 process.

6 The objectivity of this Panel, in my
7 opinion, and in the opinion of previous speakers is
8 biased toward the interest of the nuclear industry. We
9 are quite aware of the perspective of the nuclear
10 industry. For those working in the industry there's a
11 net benefit. They have good jobs, they're paid well.

12 If the Minister was looking for real
13 objectivity we would not be here offering suggestions
14 for the scope of the hearings, but rather aiding in the
15 selection of the members that would be representing our
16 perspectives on the problems. The process is suspect
17 and as a result would carry little credibility.

18 Just to speak to that, I'd be happier if I
19 could see people like Homer Seguin and faces that
20 recognize a totally different perspective rather than
21 the industry perspective. Rosalie Bertell would be nice
22 to have on the committee too. I'm not that familiar
23 with the people that are there, but I wouldn't mind --
24 I'd feel much more comfortable if we saw some prominent
25 figures who represented the other point of view.



1 Because in fact it's a very valid point of view.

2 The process, again in my opinion, is
3 intentionally designed to eliminate viable options that
4 the nuclear industry has already pre-screened. This is
5 because they are historically putting their interest
6 before those of the public taxpayer. Their
7 paternalistic rationalization of the industry has
8 resulted in the public funding of the most costly and
9 the most environmentally compromising of the energy
10 options.

11 By the selective use of information, and
12 the addiction to money from public coffers, and the
13 hiding behind the military secrecy, the nuclear industry
14 has managed to bypass economic requirements that
15 everyone else in the free market system must live and
16 die by.

17 We are asking the EARP Panel not to
18 participate in the continued exclusion of the public
19 from their rightful participation in the review of this
20 industry by confining of the scope of this process.

21 The following are areas of concern that I
22 feel should be reviewed. Any scientific proposal should
23 be judged satisfactory only if their operational time
24 frame is matched to the social responsibility that was
25 developed when this radioactive material was removed



1 from the ground and processed for the benefit of the
2 present generation. This could be further defined as a
3 time period that would allow for the material to return
4 to its previous level of radioactivity.

5 Short term out of sight - out of mind
6 solutions could easily become a catastrophe for future
7 generations. Should future generations be burdened with
8 this material? An interim storage system would also
9 require an internal trust fund that was adequate in size
10 so that its yearly growth would be sufficient to
11 maintain a storage system including an amount to rebuild
12 the system when required.

13 The approximate period of time that these
14 high-level wastes will remain a risk to society is
15 longer than the known history of the species. Ten
16 million years from now, if the world exists as we know
17 it, the radioactive fuel that we are removing from our
18 reactors may well still exist in lethal doses. The
19 scope should then include design criteria that takes
20 this into consideration.

21 The assessment should include provisions
22 for its potential -- for potential "hydrogen burping"
23 and other as yet undiscovered aspects to the science
24 that has been with us for a very short time. To store
25 this material in a non-retrievable storage is



1 technically arrogant.

2 Future generations may discover an easily
3 used science for neutralizing the radioactive components
4 if they were able to find them before there was massive
5 contamination of ground water. Probably the greatest
6 danger with non-retrievable storage is that it would
7 remove scientists from the tasks of solving the real
8 problem with nuclear power, and allowing them to treat
9 only the symptoms. Without this real incentive there
10 may never be an answer.

11 - The question of putting a moratorium on
12 future expansion on the nuclear industry. In light of
13 the fact that most other countries are not expanding the
14 nuclear option, and by the fact that Sweden is presently
15 doing the impossible in shutting nuclear reactors down,
16 this question deserves serious review.

17 When as a society we discovered that the
18 damaging effects that dioxin, had a decision was made,
19 based on moral grounds that we would have to stop
20 producing dioxins, and we did, and there was a typical
21 moaning of the industry but there was life after the
22 halt and the production.

23 The nuclear industry option has a
24 potpourri of highly toxic and radioactive materials.
25 Isn't it time to consider the cost of the contaminants



1 of a nuclear option to our society in its many forms and
2 do something about it?

3 There are reasons why more people have not
4 been attending the scoping hearings and these are as
5 follows: They're held in mid days so as to cause a loss
6 of a day's pay for those to have to travel any distance.
7 These hearings are not well published. There is a
8 learned mistrust of this government's action. With as
9 little as 15 per cent support with the public this
10 government and its actions are seen as counter to the
11 interests of the public at large. There is more than
12 the waste disposal issue on trial here. The EARP is a
13 process, but like many processes it's easily corrupted.

14 It is also ludicrous to allow
15 responsibility for handling of waste to AECL. AECL is a
16 promoter of the nuclear industry, and as such is
17 operating in a conflict of interest in this issue. In
18 my experience AECL cannot be trusted to tell the truth
19 and therefore cannot be trust to handle such a critical
20 operation. A separate independent committee to oversee
21 the operation is required.

22 Just some other points that I've developed
23 since then is that site approval of any sort should be
24 done through a democratic process. We are a democratic
25 society. We all live by the fruits of that society, and



1 this is inherent in the decision making process. It has
2 to be done so that the people in that area agree to it
3 and if that's not done then future generations will be
4 questioning quite seriously how the decision was made.

5 For the time record, Temiskaming is on
6 record as not wanting the nuclear waste, and I guess as
7 Terry referred to it, the Temiskaming Municipal
8 Association voted 43 to 1. That still is in existence,
9 it's on the books, and I think if anything you'll
10 probably find more fervor against it because in the last
11 - 10 years people that are there have crystallized their
12 concerns, they have educated their municipal leaders and
13 they wouldn't be swallowing some of the things that AECL
14 has in past put to them.

15 So we challenge the Committee to leave
16 their personal perspective at home, assume the
17 perspective of a generation as yet unborn that will be
18 left with this legacy. Make your decision based on what
19 they would decide were they here to do it in person.

20 Thank you.

21 THE CHAIRMAN: Thank you.

22 Are there any questions which any of us
23 would like to put to either of the last two
24 participants, Ms. Hakola or Mr. Raftis.

25 Thank very much indeed.



1 ---Panel withdraws

2 THE CHAIRMAN: Could we hear next from
3 Lewis Poulin.

4 PRESENTATION BY MR. POULIN:

5 Thank you, Mr. Chairman and Panel members
6 and members of the audience. I really welcome the
7 opportunity to be here today to speak freely at these
8 scoping hearings which will assess the acceptability of
9 the AECL concept of the disposal of nuclear wastes.

10 My name is Lewis Poulin, and I'm speaking
11 as a private citizen from Sudbury, a concerned Canadian
12 who is struggling on how to live in a manner that is
13 fair to our global environment and society.

14 There are three points that I would like
15 to make. I would like to comment on AECL's disposal
16 concept, I'd like to encourage this learned Panel to
17 properly define the frame of reference into which these
18 terms of reference belong, and finally I'd like to
19 clarify what I, as a Canadian, am looking for in terms
20 of energy needs.

21 Let's begin in our laboratory setting
22 here. When it comes to assessing the integrity of the
23 science that has been invested into AECL's concept
24 studies, I cannot and really don't want to debate here
25 in 15 minutes the millions of dollars and thousands of



1 hours of research performed by, I would hope, competent
2 government scientists. I choose, rather, to have faith
3 in the scientific process and let the scientific
4 community keep the government's scientists honest in
5 their work. This in no way takes away my thirst for
6 thoroughness, safety, and proper long-term storage and
7 monitoring of the nuclear wastes we have already
8 produced.

9 But I can comment briefly about my own
10 personal experiences in the field of ozone layer
11 research. In the early 1980's meteorologists thought
12 they understood the dynamics and chemistry of the ozone
13 layer and suddenly ozone holes appeared and threw the
14 atmospheric scientific community in a loop. The
15 scientists had been expecting atmospheric change since
16 the 1960s when the CFC concerns were raised, but
17 industry and government were slow to listen, and now the
18 ozone hole is one of our more serious environmental
19 problems and is still not clearly understood, even this
20 year.

21 The Murphy law school is alive and well
22 not only in the world of numerical models, but
23 especially wherever humans are involved.

24 Before expanding on my point of defining
25 the problem, I would like to recall some of the work



1 done in physics earlier this century, in particular the
2 Heisenberg Uncertainty principle.

3 In the early decades of the century,
4 physicists were breaking new ground. They were
5 exploring the unknown frontiers of the atom. They were
6 gradually exploring smaller and smaller elements that
7 made up the atom as they new it then. They were
8 interested in measuring the position and momentum of
9 atomic particles.

10 They found out though that the more they
11 worked on pinpointing the particles' positions they had
12 to sacrifice knowledge of the particles' momentum and
13 vice versa. Werner Heisenberg summarized this into his
14 now famous Heisenberg Uncertainty principle. The simple
15 action of observing atomic particles had an impact on
16 what they observed and concluded.

17 Now what does this have to do with our
18 discussion here today? We're not talking of -- well, we
19 are in a way talking about particles, but our topic
20 deals with much more than fuel bundles. We are dealing
21 with a society, with individuals, with real human needs,
22 dreams and emotions. Some of the most complex systems
23 around.

24 Here is my point. Before we can deal with
25 the terms of reference of this Panel we must define the



1 frame of reference into which this problem fits. We are
2 trying to analyse the concept of nuclear waste disposal
3 with a magnifying glass that is so powerful it excludes
4 discussion of other aspects which make up our global
5 society, and that also make up the decision making
6 process.

7 While it is easy for one to do what one is
8 told to do or asked to do, this does not mean we should
9 not think about the bigger picture, the global picture,
10 and the picture I see and vote for is the energy policy
11 picture.

12 I see very little leadership today when it
13 comes to dealing with energy policy. Our politicians
14 are changing faster than our climate. One environment
15 minister's statements are another one's nightmare. Our
16 system is not set up to properly deal with fair
17 long-term environment management, and you have an
18 opportunity here to properly define the problem and the
19 frames of reference. What is our energy policy in this
20 the turnaround decade, and what do Canadians want?

21 As a Canadian aware of the serious global
22 environmental problems I'm not ashamed to say that I
23 want to reduce the energy and resources I use in my
24 daily life. I would like our society to use less
25 energy. I would like to redefine economic growth and



1 success in global terms. I would like resources to be
2 available based on global distribution systems, and I
3 want to redefine progress. I'm increasingly
4 disenchanted with governments who think that
5 uncontrolled and continued growth is the price we must
6 pay for progress. I believe that small is beautiful.

7 I'm not proud that we, as Canadians,
8 produce the most garbage per capita on this planet or
9 that Canadians waste more energy per capita than any
10 other western nation. We can do so much in our daily
11 activities that mean even more to our global community.

12 I'm confused. I would love to have the
13 comforts of our developed society, yet one does not have
14 to be blind to see how our lifestyle impacts on
15 environments and people and now on a global scale.

16 I want to make it clear that as a Canadian
17 I do not want more energy, I want to create a quality of
18 life using less energy. A quality of life that rewards
19 us for living simpler, on a smaller scale and one that
20 shifts from unlimited growth to fair and healthy and
21 thought out development.

22 Now with all these statements I know I run
23 the risk of being told I'm out of order at this
24 assessment hearing, yet I want to take that risk for the
25 problem at hand goes much deeper than 500 meters into



1 intrusive igneous rock. The problem at hand deals with
2 energy policy which has a total and complete impact on
3 how we live as a society, both locally and globally.

4 I guess I would like to remind the Panel
5 that we are in the age of information transfer, and that
6 technology is available to disseminate information
7 instantly and cheaply, and I do this myself, personally,
8 almost every day, so I find it quite confusing as to why
9 I've heard so little about this very important topic.
10 Maybe there's a fax machine out of order or maybe
11 somebody doesn't want to use it, but please keep us
12 informed about what you are finding along the way and
13 thank you very much for listening to my comments.

14 THE CHAIRMAN: That you, Mr. Poulin.

15 Any questions from the Panel?

16 Thank you.

17 MR. POULIN: Thank you.

18 ---Mr. Poulin withdraws

19 THE CHAIRMAN: The final request I have on
20 my list for this afternoon is from Alan Asher. I wonder
21 if he would come forward, please.

22 PRESENTATION BY MR. ASHER:

23 Hello. My name is Alan Asher. I work
24 here in a non-profit organization called Sudbury
25 Citizens' Movement.



1 I really don't have anything deliberately
2 prepared for this and there's not really much more to
3 add to this except to reiterate what's already been said
4 and what you'll probably hear again by people with a lot
5 more academic knowledge behind them.

6 I just want to say that I don't like this
7 process. I don't want to talk about high-level nuclear
8 waste management. I agree with Lewis that small is
9 beautiful, and I don't believe that what we're seeing
10 here can really be defined as management. Not by any
11 real definition of the word.

12 I don't have very much education, but I'm
13 a great lover of history, and studying the history of
14 technology, I mean everybody knows it all started with
15 fire and that every civilization in the history books is
16 judged on one criteria by the type of container they
17 make. The making of clay pots is still regarded as the
18 safest and most reliable way of dating so-called lost
19 civilizations, and that the other great era of
20 technology was of course the machine age, which probably
21 started with either a wagon or a pulley, and if you
22 look at the entire nuclear technology you can see that
23 we've certainly reached the end of something here. We
24 have probably the most sophisticated way of making fire
25 that has ever been thought about. We certainly have one



1 of the most sophisticated machines that could ever be
2 created, and now we're working on what I hope is the
3 greatest container ever devised by any civilization
4 because boy they're all going to judge us on this one.

5 That's really all I have to say. That
6 everybody has a right to say whatever the hell they'd
7 like about this because it's going to affect us all and
8 that again I don't like the criteria, I don't like the
9 terms of definition, I don't like anything about this,
10 especially the fact that I feel compelled to be here.

11 Thank you.

12 THE CHAIRMAN: Question?

13 DR. WILSON: So I take it that you would
14 like us to raise -- put in the guidelines the quality of
15 the container?

16 MR. ASHER: No, the entire concept of
17 having an energy policy which requires that you contain
18 your dead energy.

19 DR. WILSON: I got that one too, but you
20 did mention container.

21 MR. ASHER: Container in a very broad
22 sense of the term. You're making a clay item which will
23 contain something.

24 DR. WILSON: Okay.

25 MR. ASHER: Thank you.



1 THE CHAIRMAN: Thank you, Mr. Asher.

2 ---Mr. Asher withdraws

3 THE CHAIRMAN: Are there any other people
4 who have not yet registered and who would like to speak
5 before we close the afternoon session?

6 Yes, one further person.

7 PRESENTATION BY MR. PETERSON:

8 My name is Vyrn Peterson. I have a vested
9 interest, I suppose, in these hearings, as Chairman of a
10 lobby group called New Energy on the North Shore, the
11 acronym being NEONS.

12 We are in the process of trying to locate
13 a major generating facility in our area and nuclear is
14 recognized as one of options although NEONS is not
15 strictly in favor of owning a nuclear plant.

16 I guess its in our interest to see how the
17 hearings were to proceed. That's why I didn't come with
18 a major presentation, but I wanted to assure myself that
19 these scoping guidelines were broad enough to cover the
20 issue and I've heard some arguments today that they
21 aren't broad enough, that they should encompass the
22 whole nuclear industry.

23 I tend to agree with what the panel
24 already has as guidelines for the simple reason that any
25 major industry, whether it's coal mining, oil refining



1 or even steel making, if it's looked upon in a
2 microscopic fashion for problems in the industry you're
3 going to find them. I mean that's just a given. I
4 think some other agencies, and I won't quote from them
5 because I'm not at liberty to use his name, but other
6 groups have already studied the production of energy
7 using coal right from the beginnings, from the mining
8 processes through to actually generating the steam and
9 getting rid of the waste materials after coal is burnt,
10 the fly ash, the waste of which amounts to a lot more
11 tonnage than nuclear waste. And they came to the
12 conclusion that the nuclear industry was much safer than
13 the coal industry. This was done by an independent
14 group so I just thought it should be left on the record.

15 I also feel that this is a very public
16 process. I haven't heard the Panel cut off any speaker
17 who wished to have their viewpoints made known, and I
18 think maybe there's a better way of doing it but I don't
19 know of it. In a democratic society I have to agree
20 with Lewis who has some reservations about the way we're
21 doing things, and maybe we can do something better, but
22 I think this is definitely a very public process. I
23 think the Panel has a large job to perform under the
24 guidelines that already exist for them and we're going
25 to be watching it with interest because we're well aware



1 that the need is there for a long-term method of
2 disposal for nuclear wastes and I can only wish you well
3 in your endeavors.

4 THE CHAIRMAN: Thank you very much, Mr.
5 Peterson.

6 ---Mr. Peterson withdraws

7 THE CHAIRMAN: Could I sum up the, and we
8 are just going to fit in -- any questions from the panel
9 members? We will just fit in under the 5:00 o'clock.

10 It has been brought to my attention that a
11 question which I put to one of the participants earlier
12 may have given the wrong impression of the Panel's
13 mandate and I apologize for that and I will now, I hope,
14 make it clearer.

15 Mr. Seguin was expressing his considerable
16 concerns about the legislative, the institutions and the
17 enforcement of regulations passed under existing
18 legislation and held that all of them had to be looked
19 at again. He was speaking, I think, particularly of
20 low-level regulations because he was concerned with the
21 uranium mine tailing.

22 I put a question to him as to whether that
23 particular concern could be addressed in guidelines to
24 AECL and I didn't see quite how it could be. In fact he
25 gave me an answer which suggested some way in which that



1 might be put into the guidelines to AECL. But in that
2 little exchange, which I found interesting and in some
3 ways helpful to me, I may have left the impression that
4 it was beyond our mandate to look at the regulatory
5 requirements. It is not beyond our mandate. We have
6 other means before we come down with our total report,
7 our final report, we have other means than responding to
8 the Environmental Impact Statement which will be
9 prepared by AECL. There are many avenues open to us and
10 one of them most certainly is to look more deeply into
11 the regulatory requirements and to see if we consider
12 them adequate for the purposes which are now before us.

13 So I just wanted to clarify that point.
14 I did not mean to say that we have no right to look at
15 all at regulatory requirements. We most certainly have.

16 Apart from that, I would merely like to
17 thank you very much for being present this afternoon,
18 for participating in these hearings. I can assure you
19 that we have been listening most carefully to all the
20 presentations that have been made. We consider it
21 absolutely essential that we hear from as wide a range
22 of people as we can hear from in working out what we
23 feel should go into the guidelines to AECL. Of course
24 we want to make sure that we have the best scientific
25 and technical knowledge available to us and we hope to



1 get some very good advice in that regard. We expect to
2 get good advice from our Scientific Review Group, but
3 this goes beyond the matter of science and technology
4 and that has been most amply brought out by many of the
5 observations, many of the comments which have been made
6 this afternoon. So that it is of value to us, of great
7 value, to hear what you have to say.

8 Let me also assure you that no one of the
9 members of this Panel, including those who are not with
10 us today, would think of agreeing to serve on it if they
11 felt that our participation was no more than a public
12 relations exercise. I can only give you that as an
13 assurance. You can believe it or not as you wish. We
14 are people of very different backgrounds, but all of
15 rather independent mind and we'll be giving the best
16 advice we can give to the Minister who charged us with
17 the task and we'll not lend ourselves to any gimmickery.

18 Thank you very much.

19 ---Break at 5:00 p.m.

20 ---On resuming at 7:00 p.m.

21 THE CHAIRMAN: Good evening, ladies and
22 gentlemen. If we're all here, or at least I hope we
23 are, welcome to this evening session. Some of you were
24 with us, I think, this afternoon but some of you are
25 here, I believe for the first time this evening. The



1 evening session of the scoping meeting which we are
2 holding on behalf of the Environmental Assessment Panel,
3 this group, to review the Nuclear Fuel Waste Management
4 and Disposal Concept.

5 The members of the Panel who are able to
6 be with me tonight are Dr. Lois Wilson on my immediate
7 right from Toronto, who is president of the World
8 Council of Churches, Co-Director of the Ecumenical Forum
9 of Canada. On my immediate left, Dr. Lionel Reese from
10 London, Ontario. A physician at St. Joseph's hospital
11 in that city, and professor in the Department of
12 Diagnostic Radiology and Nuclear Medicine at the
13 University of Western Ontario, and at the far end of the
14 table, Mr. Pieter Van Vliet from Regina, an engineer,
15 who is also a member of the Senate of the University of
16 Regina. My name is Blair Seaborn, I'm from Ottawa.

17 This review is being conducted in
18 accordance with the Federal Environmental Assessment and
19 Review Process. The Panel has been asked in part to
20 examine the Nuclear Fuel Waste Management Disposal
21 Concept, a proposal for permanent disposal of used fuel,
22 nuclear fuel, deep in the granitic rock of the Canadian
23 Shield. This proposal would see the used fuel sealed
24 inside corrosion resistant containers and placed in
25 holes drilled in the floor of the room inside a disposal



1 vault that would somewhat resemble a deep mine.

2 If I could say a few words about the
3 Panel's mandate. The terms of reference state that the
4 Panel is to review the safety and acceptability of the
5 concept for geological disposal of nuclear fuel waste in
6 Canada, the Atomic Energy of Canada proposal. In
7 addition to the AECL proposal we shall examine a broad
8 range of nuclear fuel waste management issues including
9 long-term management, transport, and environmental,
10 social and economic effects.

11 We shall look at approaches for nuclear
12 fuel waste management and disposal being developed
13 elsewhere in the world. Since site selection will not
14 occur until the disposal concept has been accepted as
15 safe, the Panel will not consider any specific sites,
16 but it will review the potential availability of sites
17 and the methodology and criteria required for site
18 selection.

19 Let me say a word also about what is not
20 in the Panel's mandate, and will not be addressed in our
21 review. The energy policies of Canada in the provinces,
22 the role of nuclear energy within these policies,
23 including the construction, operation and safety of new
24 or existing nuclear power plants, fuel reprocessing as
25 an energy policy, and military applications of nuclear



1 technology.

2 I would like to be quite clear, however,
3 that the members of the Panel are very much aware of the
4 broader concerns related to the use of nuclear materials
5 and the use of nuclear power for the generation of
6 electricity.

7 We have been urging a broader review of
8 the comparative environmental implications of the
9 various methods of generating electricity. I understand
10 that steps have now been taken to get such a review
11 underway, I hope in the fairly near future.

12 The purpose of these scoping meetings is
13 to allow participants to identify issues that need to be
14 addressed in the Environmental Impact Statement that
15 will be prepared by AECL. The Panel is not requesting
16 the presentation of opinions on the substance of the
17 disposal concept at this time. Upon the completion of
18 this round of meetings the Panel will prepare draft
19 guidelines for the preparation of the Environmental
20 Impact Statement. There will be a period for public
21 comment on those draft guidelines. They'll then be
22 issued to AECL, which over the next year to a year and a
23 half, as far as I can make out, will be preparing the
24 EIS. When it has completed that statement it will be
25 presented to the Panel and will be made available also

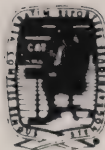


1 to the public for at least a period of 90 days for
2 review.

3 Once the Panel is satisfied that AECL has
4 addressed satisfactorily all the items which we have
5 identified in the guidelines, we will hold public
6 hearings and participants will then be asked to discuss
7 the acceptability or otherwise of AECL's disposal
8 concept in detail. We will consider all comments
9 submitted to us and we will prepare our report to the
10 Ministers of Environment and Energy, Mines and
11 Resources.

12 Insofar as this evening's proceedings are
13 concerned, I would ask that those registered to speak
14 attempt to summarize their concerns in 15 minutes unless
15 they have previously requested an additional 10.
16 We shall pay equal attention to oral and to written
17 comments. We may ask questions of clarification
18 following any of the presentations.

19 There have been a few people indicating
20 just as the meeting was about to start that they would
21 like to speak. If there is anyone else who would like
22 to make a presentation but has not yet registered, would
23 you be so kind as to speak either to Mr. Greyell or Ms.
24 Toller, the members of the staff, members of our
25 secretariat and they will be glad to get you on the



1 list.

2 We shall also accept written submissions
3 identifying issues and concerns up to and including
4 November 30, 1990.

5 With this by way of a brief introduction I
6 would like to call upon the first speaker for this
7 evening on behalf of the Whitefish River First Nation.
8 I understand Tim McGregor will be representing and
9 speaking on behalf of Chief Leona Nahwegahbow.

10 PRESENTATION BY MR. MCGREGOR:

11 Good evening, ladies and gentlemen. This
12 is a statement to the Nuclear Waste Management
13 Environmental Assessment Panel, and I'm a band
14 councillor from the Whitefish River First Nation which
15 is situated in Birch Island, Ontario. Chief Nahwegahbow
16 sends her regrets but has instructed me to deliver the
17 message to the Panel. So what I will do is I will
18 begin.

19 The position of the council is that the
20 long-term management of nuclear fuel wastes raises
21 issues of great concern for the community of Whitefish
22 River First Nation. It is our initial concern that such
23 short time lines were employed to solicit public
24 discussions and input into the review of the nuclear
25 fuel waste management and disposal contempt.



1 As Aboriginal peoples we are very
2 interested in reviews such as this one. We feel we have
3 a higher stake than most other users in the overall
4 condition of the environment because of the close
5 proximity of our way of life within this environment.

6 At this point we feel it is necessary to
7 communicate to you our dismay at the limited public
8 notice issued to inform Canadians as well as Aboriginal
9 peoples of this review.

10 We did not learn of this review by way of
11 public notice or by way of direct invitation.

12 We learned of this review when approached
13 by Northwatch. They invited us to a workshop to inform
14 us of the background activities which have led up to
15 this review.

16 The sheer luck of being introduced to the
17 review in this manner has caused us to seriously
18 question the adequacy of public notice.

19 The concept of high-level radioactive
20 waste burial is an overwhelming one, taking into account
21 that we have had only two weeks to address it. It is
22 troubling to us how this review process can determine
23 the issues of public concern on the impacts of the
24 disposal concept, without the public being provided with
25 sufficient information to develop full awareness of the



1 range of approaches to long term management of nuclear
2 wastes.

3 Since the Northwatch workshop we have had
4 the opportunity to also study the terms of reference for
5 this Panel.

6 We must be direct in informing this Panel
7 that we have to take the position of rejecting the terms
8 of reference because it limits the scope of discussions
9 that can be entered into to address this concept.

10 We find it impossible to communicate our
11 concerns on high-level radioactive waste disposal
12 without specific sites to relate the burial of waste to.
13 The terms of reference of this Panel does not allow
14 consideration of any specific potential sites.

15 We do not know how the government of
16 Canada arrived at this decision to direct AECL to
17 concentrate its research resources on intrusive igneous
18 rock formations of the Canadian Shield as the preferred
19 geological medium for developing its disposal concept.

20 Did they simply follow the lead of other
21 countries or perhaps did they apply the adage out of
22 sight - out of mind? No one bothers to explain the
23 reasoning on how a decision was arrived at to choose
24 burial of high-level radioactive waste in granite rock
25 above other methods. If an explanation exists we have



1 not seen it or had a chance to review it. We're just
2 supposed to accept it as being the best one. We cannot
3 accept this disposal concept as being the best one until
4 we have examined the criteria and comparisons used to
5 designate it that way.

6 We believe that different plans and
7 schedules for the construction of nuclear waste
8 management facilities should be examined with equal
9 merit in this review. This is fundamental on an
10 objective review process, and we feel that the Panel
11 - should seriously consider it before proceeding further
12 with the review.

13 If this cannot be addressed, will the
14 public be expected to continue placing blind faith in
15 the disposal concept now being presented to them? In
16 our estimation it would be unreasonable for the Panel to
17 proceed further from such an expectation because the
18 myriad of aspects that issue forth from public concerns
19 cannot be properly treated in such a limited way. We
20 thought the purpose of the scoping review was to
21 identify the issues that we want addressed in the
22 guidelines of the EIS. Once again we must point out to
23 the Panel that we are handicapped in doing this because
24 someone has decided on the best concept beforehand
25 without the prior benefit of public input into that



1 decision. How can the public be expected to have
2 confidence in that choice if they did not contribute to
3 it?

4 If the government is sincere in its
5 solicitation of public involvement then they should
6 involve the public at the outset, not somewhere in
7 between.

8 Human beings must be allowed to inhabit
9 these processes from the very beginning. It's the only
10 way they can make meaningful contributions to decision
11 making which ultimately affects them in the end.

12 This review has quickly taken shape to
13 become one of the most important environmental
14 assessments ever undertaken in this country, and will
15 provide an essential foundation for future decisions on
16 energy policy.

17 Therefore this review should take into
18 account the energy policies of Canada and the provinces
19 and the role of nuclear energy within these policies
20 since it is anticipated that the review will impact
21 various policies through its findings.

22 We have pointed out what we believe to be
23 the inadequacies of the review process. It is clear to
24 us that the process does not provide the public with the
25 mechanisms to address the disposal concept in an



1 holistic manner.

2 It is because of this we are reluctant and
3 skeptical to participate in this whole process because
4 your rules do not recognize the legitimacy of
5 interactive approaches.

6 This review places emphasis on scientific,
7 technical and procedural rationality and we are not
8 arguing that high-level nuclear waste does not deserve
9 this approach. However, we'd like to remind everyone
10 that life and peoples are not limited to only scientific
11 and technical applications.

12 For example, the review does not address
13 the issue of land use and ownership, which to Aboriginal
14 peoples must be addressed before environmental impact
15 assessments can make sense to them.

16 In our view the question of who owns the
17 land remains critical to determining how, if at all, it
18 is to be used.

19 We understand however, not without
20 anguish, that panels and ministries of the environment
21 have no mandate to resolve policy disputes such as land
22 claims.

23 Where then can our concerns for the land
24 and our way of life within it fit into this review
25 process if such a mechanism is not in place?



1 The social and spiritual values so deeply
2 rooted in our culture must be factored into your
3 decision making. There must be room in your process to
4 take our special and unique requirements with the land
5 into account.

6 Your facts and knowledge are presently
7 inadequate unless they can be accompanied by wisdom and
8 experience that Aboriginal peoples historical continuity
9 and relationship with the land can provide you.

10 We will speak to you from the heart, if
11 you will consult with our community. This is not the
12 time and place to tell you why we will not be able to
13 conjure up scientific input into your disposal concept,
14 but we would be willing to explain to you our reasons
15 for this if you can produce a framework in which to
16 deliver these reasons. A framework which will allow the
17 integration of a life centered approach, one that we
18 recognize you need, the land needs. An approach that
19 must be taken into account in order to protect
20 environmental and human health, before it is too late.

21 Our suggestions have provided the
22 identification of issues that we feel should be included
23 in the guidelines for the preparation of an EIS.

24 They must be weighed for their merit in
25 these proceedings by your Panel. We want our issues and



1 concerns to be served by this process, but this cannot
2 be accomplished in your structure and processes as they
3 presently stand. You must be prepared to look at our
4 philosophy, culture and value system and integrate it
5 into your review to meet our needs.

6 This means the rules will have to undergo
7 serious changes. You may or may not have the power to
8 recommend or effect the course of action we are
9 requesting. However, we encourage you to recognize its
10 value and worth, and we ask you to advocate it and
11 facilitate its introduction in any way that you can.

12 If this cannot be accomplished then you
13 neglect your responsibility to receive our concerns
14 equitably along with those of others that appear before
15 you. How can justice be served? It can only appear to
16 have been served.

17 Thank you.

18 THE CHAIRMAN: Thank you, councillor
19 McGregor.

20 Any questions which Panel members wish to
21 put by way of clarification to the presentation that
22 we've had from the Whitefish River First Nation?

23 Dr. Wilson.

24 DR. WILSON: Just to be sure I got your
25 main point. In addition to what you call the scientific



1 technical and procedural rationality, you're saying that
2 equal attention needs to be paid to the cultural and
3 spiritual factors of your people and the relationship to
4 the land? Is that what I'm hearing?

5 MR. MCGREGOR: In a way I suppose that
6 we're saying that I think from our perspective it should
7 be put into place first.

8 DR. WILSON: That which?

9 MR. MCGREGOR: Our spiritual and cultural
10 values need to be recognized, and from our opinion it
11 should be looked at first before we can proceed with the
12 technical and procedural matters.

13 THE CHAIRMAN: Do you have any question?

14 MR. VAN VLIET: Yes.

15 THE CHAIRMAN: Mr. Van Vliet.

16 MR. VAN VLIET: Can you give us any
17 indication as to how the Panel might approach that?

18 MR. MCGREGOR: Yes, we have a number of
19 our elders, what we call, I guess, our technical experts
20 if you want to put it into a culture and our traditional
21 values that we rely heavily on. I think that some
22 mechanism for their input, and I think mechanism for
23 reporting from First Nations that are going to be
24 affected should be introduced.

25 Like I mentioned at the onset, we only



1 stumbled upon this at a very critical moment to make a
2 presentation and I know, you know, talking to the First
3 Nations and also the leaders of the First Nations in our
4 communities, they're not fully aware of what's
5 proceeding tonight or what's taking place. So I think
6 there has to be a better communication, if you want to
7 call it that, mechanism in place. I don't know if I
8 skirted around your question.

9 MR. VAN VLIET: No. You answered it.
10 Thank you.

11 THE CHAIRMAN: Anything else? If not,
12 thank you very much and thank the Chief, please, for
13 asking you to come down.

14 MR. MCGREGOR: I will do that.

15 ---Mr. McGregor withdraws

16 THE CHAIRMAN: The next on the list of those
17 who would like to participate is Mr. Lloyd Greenspoon.
18 If he's present would you come forward.

19 PRESENTATION BY MR. GREENSPOON:

20 Yes, Mr. Chairman and Panel members, you
21 will notice that I'm identified with the word "lawyer"
22 after my name, and I as much as I'm finding out, lately
23 especially, that there's a lot of people around that
24 don't like lawyers. I guess I should have known that
25 years ago before I even got involved in this business,



1 but when Mr. Greyell asked me -- when I told him that I
2 wanted to make a presentation he asked me well, am I
3 representing a group and what should he put and I said
4 put lawyer after so it's my fault, I guess, for having
5 that in.

6 But having said all that, and I guess I'll
7 go one step further and quite bluntly and frankly, it's
8 my opinion that the Environmental Assessment Review
9 Process doesn't like lawyers either and I think that
10 that's a mistake. I think that this whole process, and
11 I mean no disrespect to the four of you here, is a sham.

12 Basically in the world we have two
13 processes of law. One is adversarial and the other is
14 inquisitorial and the more modern way, the more
15 enlightened way, the more democratic way, is known as --
16 is recognized to be adversarial.

17 You are proposing that we have an
18 inquisitorial system and it's archaic. It's what they
19 did in inquisition and that's the way I foresee your
20 hearing being, an inquisition. Where you decide what
21 questions are asked, what the scope of the questions are
22 and, quite frankly, I don't think that you should fall
23 into that trap, and I'm here to tell you how you can get
24 around that trap.

25 I will start by looking at this piece of



1 propaganda that I guess you put out, but I think you
2 have to ask the question did AECL really put this out?
3 And when you look at what it says here, "Up to \$750,000
4 in participant funding announced. Atomic Energy of
5 Canada Ltd. has offered to provide funding to eligible
6 participants to take part in the Environmental
7 Assessment on Nuclear Waste Management and Disposal
8 Concept." Up to \$750,000 is available and so on.

9 Who are AECL to tell you how much should
10 be given out for funding? The Ontario -- it's very
11 likely and Mr. Frech, Egon Frech from AECL has always
12 told me that he believes Ontario's producing the
13 waste -- using the fuel and producing the waste,
14 Ontario's going to get the waste. Well, if we're going
15 to get the waste and I refer you in this regard to the
16 letter of Marcel Masse to Tom McMillan, which I put to
17 you is the letter upon which you should base this
18 hearing. Marcel Masse being the Minister of Energy who
19 referred this concept to the Minister of the Environment
20 for the assessment.

21 In his letter of September 23rd, 1988, he
22 says, "Ontario produces the bulk of Canada's used
23 nuclear fuel and has participated in the research and
24 development phase of the concept. It is important to
25 have Ontario's full co-operation at all stages in the



1 review. In carrying out the review the Panel should
2 ensure that the principles of Ontario's Environmental
3 Assessment Process are accommodated." Well, we don't
4 hold environmental assessment hearings like this in
5 Ontario. We have lawyers there. We have the right to
6 cross-examine witnesses, and if you don't do that its
7 going to be a joke.

8 If you read the Federal Court decision in
9 the Rafferty-Alameda case, you will see that the judge
10 in that case, and I happen to have it here, and it's Mr.
11 Justice Cullin, and he says, "The EARP guidelines are
12 not a mere description of a policy or program but create
13 rights which may be enforceable by law."

14 I see a note being passed around. I take
15 it that's with respect to me is it?

16 THE CHAIRMAN: Someone has just been kind
17 enough to give me a copy of the letter to which you have
18 just referred. I had not seen the letter before. I
19 don't know what actually triggered this special -- the
20 Panel at the moment. It was a letter from Mr. Epp to
21 Mr. Bouchard. This may be one in a series preceding it.

22 MR. GREENSPOON: I'm shocked that you
23 haven't seen that letter.

24 THE CHAIRMAN: Well, you may be. It
25 doesn't shock me. I've not been in government for some



1 time.

2 MR. GREENSPOON: No, but I'm shocked in
3 the sense that that is the reason we're here. Because
4 he wrote that letter. That's the basis of this hearing
5 and he's the one who sets out the terms of reference. I
6 listened to you earlier this morning and it was as if
7 you were reading from that letter. So obviously the
8 concepts have followed the pipeline down.

9 In any case, I have a bunch of notes
10 written here. I think I'll just skim through them.
11 Some of the principles of natural justice that I don't
12 think you're going to be following are that you're not
13 going to hear both sides in an inquisitorial hearing.
14 There may be a perception of bias and with all respect
15 to the Panel member, a professor of nuclear medicine
16 should not be sitting on this Panel. You have a
17 perceived vested interest if not an actual vested
18 interest. It cannot be fair hearing.

19 Now as I said when I quoted the
20 Rafferty-Alameda case, and of course we've all heard
21 about Rafferty in the last couple of weeks, where the
22 Panel resigned because they didn't like what was going
23 on. Well, I put it to you, don't resign. Change the
24 terms of reference. Broaden the terms of reference.
25 You have the legislative and the legal authority to do



1 that. Make them broader. Everybody that's come here
2 tonight has told you to do that. Otherwise you're going
3 to find, members of the Panel, that nobody's going to
4 participate in these hearings.

5 Greenpeace has already decided, the
6 biggest environmental group in Canada, not to
7 participate because it's a joke. Now some of us have
8 put in a lot of time and come here and want to
9 participate but we're not going to participate if you're
10 not going to change the hearings around to make them
11 fairer.

12 I've been involved with the nuclear
13 industry for almost 20 years, and we're very concerned -
14 I live on Manitoulin Island - and we're very concerned
15 with the low-level waste that Homer Seguin spoke about
16 in Elliot Lake.

17 When AECL asked us to participate about 10
18 years ago in their process, we told them we would not
19 participate in the high-level waste process unless they
20 agreed to do something about the low-level waste. They
21 declined. So we were not invited to participate at all.

22 I think the whole history of AECL's
23 arrogance -- just tonight I overheard a conversation
24 between a woman from Massey and Mr. Frech AECL and I'll
25 quote what he said. Now remember, I'll put a framework



1 around this. Eight years ago 80 per cent of the
2 citizens of Massey, 80 per cent in referendum said we
3 don't want high-level waste. Get out of here AECL.
4 Well, Mr. Frech, the PR man from AECL just tonight said,
5 "We still have a researcher in Massey and we're doing
6 exactly what we said we would do." So that's the kind
7 of criminals we're dealing with. That's who we're
8 dealing with. And if we can't cross-examine these
9 people we can't prove that they're criminals.

10 I have no problem with this Panel not
11 dealing with Canada's energy policy because quite
12 frankly Canada doesn't have an energy policy anyway.

13 So I guess those are the points I wanted
14 to make. I guess one last point that I think I can't
15 leave without making, is that I think that it's quite
16 shameful that there isn't translation into the French
17 language here. The only hearing in Northern Ontario
18 where we have a very strong Francophone population. I'm
19 quite ashamed that there isn't translation.

20 I'm sorry to be so negative, but I can't
21 see anything positive about being here. I was saying
22 earlier, to me it's like a bad deja vu being here.

23 Thank you.

24 THE CHAIRMAN: Any questions which anyone
25 wishes to put to Mr. Greenspoon?



1 DR. WILSON: No it's quite clear.

2 THE CHAIRMAN: I think it's quite clear
3 what your position is, sir. Thank you.

4 MR. GREENSPOON: Thank you.

5 ---Mr. Greenspoon withdraws

6 THE CHAIRMAN: Could I call next on Ed
7 Burt who will speak on behalf of the Algoma Manitoulin
8 Nuclear Awareness group.

9 PRESENTATION BY MR. BURT:

10 I guess the first thing I should do is
11 - apologize to Algoma Manitoulin Nuclear Awareness,
12 because I'm not sure that I'm going to be following all
13 the guidelines of our organization. I haven't got
14 anything written down. We will, hopefully, if we
15 continue to work in the process write down a
16 presentation. At the moment, you know, we're wondering.

17 I came over here basically to find out
18 what the word "scoping" meant and I haven't really found
19 out yet, but I'm learning some things. It seemed
20 obvious that Homer Seguin seems to be a pretty aware guy
21 and he didn't seem to know so at least that's what I
22 understood from listening this afternoon.

23 I didn't apply for an extra 10 minutes, so
24 I hope you people just cut me off because I -- the first
25 time I found out about things nuclear was one night when



1 I used to listen to the radio when I was a kid and I
2 used to be able to watch a half hour program, go to the
3 barn and do some chores for my father and get back and
4 watch another half hour program that I liked on the
5 radio. I was hooked on radio. We didn't have any
6 electricity, we used a battery and we had a wind
7 charger, so I was out in the windy nights getting the
8 battery charged up and one night I listened to the
9 detailed bombings of Hiroshima. I've hardly turned a
10 radio on since and I know that engineers go to engineer
11 school and scientists go to science school for a few
12 years.

13 I have read documents from AECL, from the
14 federal government, from Atomic Energy Control Board and
15 I have a library of books that I have read over the past
16 45 years. So I've been studying things nuclear for 45
17 years. I have a grade seven education so I probably
18 shouldn't be up here at all.

19 But the thing that really concerns me is
20 my anxiety and it's an anxiety that I share and I find
21 I'm sharing it with more and more people and I'm not
22 alone in this. I don't think I'm a radical, I don't
23 think -- I know when I listen to the people here today
24 it almost sounds like a conspiracy. Practically
25 everybody that was up here to this microphone, in my



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1 view, was saying almost the same thing.

2 But I've never believed that we -- I know
3 that the wild geese at some certain time, when it gets
4 to be the right temperature and the right amount of
5 daylight, they fly into the air and they go 6,000 miles
6 south and they land whether they've never done it
7 before, and so maybe our instincts are gone and I'm not
8 sure that they are. I think that we still have some
9 lingering back there in the silence somewhere, and
10 somehow or other I think that they surface themselves
11 and I think that what we hear here is the voice of
12 people that feel the same anxiety as I feel. And the
13 more things that I study and try to understand about
14 things nuclear the more anxiety I have.

15 This Panel, and I've never had an
16 opportunity to talk very often about my stress and
17 anxieties in this area because there hasn't been very
18 many forums. I've met in, I think, four different rooms
19 with you, Mr. Seaborn, talking about, I have them on
20 file, a single nuclear waste agency that we made to
21 the -- presentations to the Minister of the Environment
22 and I've been to Ottawa talking to members of FEARO over
23 the years. I've been to the Atomic Energy Control Board
24 several times. I know some of these people by their
25 first names.



1 I met Mr. Egon Frech at a waste symposium
2 panel in Carleton University over a decade ago talking
3 about the very same thing that we're talking about right
4 now.

5 I was involved fairly deeply in the Massey
6 affair. I have written little articles in the paper and
7 it takes a long time for me to write a letter. I have
8 to get a dictionary to almost spell every word, and I've
9 had people phone me from Pinawa, Manitoba, the next day
10 after the little article come out in one of our little
11 papers saying that they would like to come and have a
12 chat with me on their way to Ottawa and they would stop
13 at Sudbury, hire a car and drive to my little farm on
14 Manitoulin Island to talk to me about that one column
15 article in a little tiny paper on Manitoulin. AECL's
16 been covering all the bases for years.

17 I just was thinking when I was sitting
18 back there today and I see one of AECL's public
19 relations people here today and with his little -- those
20 little telephones that haven't got any wires on them.
21 He wasn't talking -- if he was -- if it was personal
22 conversation I don't want to hear it, but if there was a
23 little tape in that, you know, I'm a curious enough
24 creature that I just wondered what was going, you know,
25 what was being communicated today out in the hall. I



1 have a very suspicious mind.

2 And when I see this little narrow channel
3 that we are getting ourselves into, it doesn't -- it
4 increases my anxiety. It shouldn't do that. We should
5 somehow be able to deal with things nuclear in a way
6 that relieves us, but when we see -- you know, I know we
7 shouldn't be talking about radioactive tailings, but
8 when we see millions of tons of them being piled up in
9 Northern Ontario and we read more things about radon gas
10 and low-level radiation problems, our anxiety increases.

11 When we listen to some of -- Cameco
12 telling us how safe the refinery is and Eldorado
13 Nuclear, when they're going to build a nuclear refinery
14 23 miles from where I live as the crow flies, how safe
15 it was, we didn't believe them, you know.

16 And last spring we had a one year leak of
17 the recommended amount of emissions, whatever that is.
18 That's however the industry can work in an economic way.
19 That's how we set all these guidelines. So anyway, so
20 many kilograms of uranium dust went into the atmosphere
21 in a 26 hour period. A whole year. Supposedly we got a
22 whole year's dose in one day so we got a double dose
23 this year because we're going to get the regular amount,
24 you know, as they go along. We didn't believe them when
25 it was being built that it could be safe and we were



1 right.

2 Now, you know, I don't agree with Terry
3 Graves. I don't think that we should put the -- you
4 know, I don't think that we should put the nuclear waste
5 alongside the 401. I think we should put it underneath
6 Malton Airport and I've said that at a lot of meetings
7 now for more than a decade because -- but we will make
8 the mistake if we do, the same mistake that was made in
9 Scarborough, because when the big planes won't fly some
10 day maybe because of global warming we won't identify
11 what was there and we'll build on it and then some day,
12 some distant hundreds of generations hence, we'll
13 realize the mess we got into. Just like the people that
14 play in the radioactive -- low-level radioactive stuff
15 in Scarborough right now and I look at the \$750,000,000
16 that somehow or other -- AECL of all people are telling
17 us that that's the amount of money that we can spend on
18 an issue like this. My little mind wanders to the point
19 where I see that stuff not being managed at best, but in
20 some kind of a hole. What kind of a monument would I
21 build on top of it? When I look back at our language
22 since the beginning of civilization then I look at all
23 the symbols and how it's changed, do we think we're
24 going to be speaking English a thousand generations from
25 now? What are we going to put on the tombstone even to



1 identify it for a thousand generations hence, and we sit
2 in a room like this, you know, comfortable, with too
3 much heat and too much light and too much energy and too
4 much waste and we assess a concept. How the hell do you
5 asses a -- what does that even mean, assessing a
6 concept?

7 You see my vocabulary, and I know it's
8 limited, don't even include those words and I don't even
9 know what it means.

10 My mind was wandering when I was back
11 there and I remember one time being at a meeting and
12 somebody said the word "theology" and somebody else
13 spoke up and said, "what is theology?" Well, another
14 guy said, "well, theology is looking for a black cat and
15 dark room and a theologian might be the only person who
16 knows where to look."

17 Well, you now, maybe there's no connection
18 here, I'm sure. But what in the world does assessing a
19 concept mean and, you know, we can sit here and we can
20 rant our anxieties and in the meantime we have people
21 like Jake Epp giving AECL another \$65-million to add to
22 their budget for that year because they want to
23 somehow -- you know, I'm not supposed to talk about that
24 too because that's too narrow, because we got to keep
25 this thing narrow.



1 I saw the big ads though. We're talking
2 about this concept. I seen the big ads in our little
3 local paper. I don't know how big the circulation is.
4 Any you people in this room get the Gore Bay Recorder?
5 Full page ads from AECL with this nice collage, and on
6 it a lot of trees and animals and deer and this almost a
7 decade ago saying on it "granite is forever." How the
8 hell does anybody know whether granite's forever. Maybe
9 bullfrogs are forever but maybe granite is not forever
10 and the reason I believe that is because when I was in
11 trail ranger camp, I only went six months because I had
12 to stay at home and help my dad on the farm. Is the
13 place on fire or is my 15 minutes up?

14 THE CHAIRMAN: No, that's not your 15
15 minutes. I don't know what it is. Go ahead.

16 MR. BURT: One of the little poems that we
17 had at the trail ranger camp was, "I went to the rock to
18 hide my face and the rock cried out no hiding place,
19 there's no hiding place down here." There's no hiding
20 place for Northern Ontario, for Toronto's garbage.
21 There's no hiding place in Northern Ontario for all the
22 low-level waste that's laying around Scarborough and
23 Port Hope and there's no hiding place in Northern
24 Ontario for the high-level waste either, and you know --
25 and I think probably I'd like to quit there and yet I



1 want to spend just a little longer and just tell you
2 another little thing that happened to help when I was
3 sitting down there about my mind wandering, and how I
4 looked at this thing here the other -- today coming
5 over, I just got it last night in the mail and I look at
6 the people that you -- the Panel here is going to have,
7 you know, as advisors. They got really terrific titles.

8 Back in the '60s Allis Chalmers, this
9 is -- my mind always wanders back to my farm. It's the
10 only place that I can -- if I'm sane at all, it's when
11 I'm there. In the '60s Allis Chalmers decided that they
12 would build a new tractor in Britain and they were going
13 to put it on the market for about \$3,000 less than a
14 comparable horsepower tractor from any other companies.

15 Well, when they got the thing -- when they
16 had the concept, if they would of hired me to go over
17 there and go through when they were building it, well
18 they wouldn't do that. I have no education. You know,
19 I'm not an engineer and after all they are engineers,
20 and you know, they're designers and engineers and after
21 all they've been building good machines and they were
22 for over 60 years. So, you know, they would of laughed
23 at me if I even suggested that I wanted to go. They
24 went ahead and built it.

25 I bought one because it was \$3,000 less



1 than I could get one of comparable horsepower, made in
2 Britain, the home of technology, you know, and that's
3 where it all began. So I got it home. Every
4 conceivable thing happened to that machine and over a
5 period of a year and a half while the warranty was on
6 they replaced every part that they could replace. I got
7 some built, custom built, and then the warranty went off
8 of it and they still added parts to it and then after
9 two years when there was no way of me getting anything
10 more from the company, that's when it really got
11 dangerous, and if I would of had one of my kids on that
12 tractor one day they may have got killed. Because I was
13 going on a side hill and the hind wheel fell off, and I
14 replaced it because I couldn't replace more than one at
15 the time and over a period of six months both hind
16 wheels came off, both axles broke and the spindles broke
17 on the two front wheels. I had to replace them all and
18 I was really lucky that I didn't turn it over and kill
19 myself or some of my family. You know, these are
20 engineers that built this thing and they would been
21 making good tractors for 60 years.

22 My mind wanders back and we look at the
23 situation that we're getting ourselves into. You know,
24 I've read stories about how the nuclear industry was
25 going to co-op the public or anybody that was against



1 anything that they believed in. I'm hopeful that this
2 isn't the ultimate co-op. I'm wondering. I want to
3 participate as a citizen.

4 I was at the open house, but you know you
5 can go to an open house -- McDonalds can have an open
6 house to, you know, introduce a new hamburger, and so
7 there's not there much difference really. And I'm at
8 this hearing and I -- believe you me, I've got
9 grandchildren, I've got six kids and I have got eight
10 grandchildren. I really believe that I have a moral
11 responsibility to care for the earth.

12 I'm an organic farmer and I've been
13 working on my farm for over 40 years now, and I want to
14 leave some kind of a legacy here. Not that it's ever
15 going to be written down. I don't want anybody to know
16 my name, and I want to know how I can fit into this
17 process to have a safer world for the future and I don't
18 see it happening.

19 I'm sorry, my anxiety is not lessening as
20 a result of coming over here today and I really hope
21 that in the future that we really look at how serious
22 dealing with this high-level waste is.

23 I'm sorry I rambled on so long. I'll get
24 something written down from my organization next time.
25 They will never let me do this on my own again.



1 ---Mr. Burt withdraws

2 THE CHAIRMAN: If could ask if Joan Kuyek
3 would come forward and speak to us.

4 PRESENTATION BY MS. KUYEK:

5 I thank you for the opportunity to speak
6 today. I don't have a written presentation and I really
7 don't have many more basic points to make that have not
8 already been made over and over again by people like me
9 who are in the audience and were this afternoon.

10 I'm a woman who lives in Sudbury and I
11 have two children of my own and another one I raised and
12 I'm now kind of a grandmother because she has a baby and
13 I care deeply about this community that I live in and
14 the future of my children and my grandchildren and their
15 decendents, and as the Whitefish River First Nation
16 representative said, I think that the land that we live
17 in is a lot more than the scientific and technical
18 aspects.

19 People in Northern Ontario are very
20 suspicious people, you know, and when Homer Seguin from
21 the United Steelworkers spoke this afternoon, it made me
22 remember very clearly some of the reasons why we're
23 suspicious and when his comments were said to not be
24 quite relevant because you couldn't see how they
25 pertained to the subject before the Panel, my heart



1 almost stopped.

2 I spent seven years working in a legal
3 clinic dealing with injured workers. Largely, people
4 who had been hurt in the mines, hurt on the roads, hurt
5 driving trucks, people who had been hurt in the
6 smelters, all in environments that were supposedly
7 somewhat safe. And I know when I read through the stuff
8 on high-level nuclear waste disposal I kept, boy, I sure
9 do not want my son working around that stuff.

10 A lot of our sons and daughters already
11 do. They get into their suits and they go down and they
12 remove rods. They do all sorts of dangerous work to
13 pull this kind of stuff out of the ground to make power
14 for large companies where more of our kids get hurt and
15 then it all gets turned into armaments and other things
16 and goes off and kills other people's kids somewhere
17 else.

18 People in the north are very suspicious.
19 We've watched this land raped and pillaged for war
20 materials and cars that kill people on the roads over
21 and over again and none of the money's ever stayed here
22 and most of the other stuff left with it.

23 We know that everything breaks down at
24 some point, and that there's lots of room for human
25 error when people are being pushed and rushed in their



1 work at the level where equipment's made, containers are
2 made, reels are put on or whatever. Things just don't
3 work right and every theoretical concept we hear around
4 nuclear energy assumes that the monitoring systems are
5 going to continue to work, the money is always going to
6 be there, somebody is going to be willing to do the job
7 and nobody is ever going to make a mistake and if they
8 do there will be a backup of at least two more people.
9 But over and over and over again these mistakes get made
10 and more mistakes get made and people get killed even
11 when we use nuclear energy in benign ways.

12 I think on some level it's the arrogance
13 of it all that drives me nuts. It's this idea that
14 somehow this generation of people is going to come up
15 with some plan that's good for 25,000 years. What right
16 have we got to think we know what to do with plutonium,
17 for God sake? Ed Burt did a good job of talking about
18 some of that, and I don't think I need to go into it.

19 I wanted to just mention a couple of other
20 examples of the way in which people like us are
21 supposedly manipulated by the nuclear industry.

22 One of the more present things in Sudbury
23 is that there's going to be a big display on nuclear
24 waste at Science North, our tourist gem, the big metal
25 snowflake that sits on Lake Ramsay. It's being funded



1 by AECL. One wonders what the point of having a Panel
2 here asking us about our opinions of nuclear waste is,
3 is supposedly having public input when the proponent of
4 that concept is about to spend God knows how much money
5 on a nuclear waste exhibit at Science North.

6 I just want to call attention to three
7 very specific examples where I think arrogance is really
8 extreme.

9 The first one is that we will continue to
10 have any kind of economy or we even have one now that
11 can sustain the kind of monitoring and construction and
12 transportation systems that will be necessary for this
13 kind of thing. Even to maintain the nuclear industry as
14 we know it.

15 We have one of the most dangerous highways
16 in the world here. I happen to live almost at the
17 junction of the main line of the railway and the main
18 highway that goes across this country. A two lane
19 highway and a couple of lanes of track that wobble
20 through my neighborhood, and I know that if stuff is
21 going to be shipped up from Port Hope or something to
22 the north it's going to go on one of those things near
23 my house or given the way the economy is probably
24 something with a lot more potholes and even worse
25 conditions than it's got now. It's a little scary. .



1 Trains derail all the time. Any of us here who drive
2 Highway 69 know what that's like on an icy day in the
3 wintertime. It's terrifying. Most of us had many
4 friends and relatives killed on it, and the thought of
5 one of those trucks going up there with a huge enormous
6 metal container that I saw a picture of on it doesn't
7 make me feel any more comfortable, and I'm sure it
8 doesn't make anybody else feel more comfortable.

9 What are all those extra costs? Is that
10 proposal going to look at all the four laning that's
11 going to be necessary just to get a truck from Port Hope
12 up to Pickle Lake or something? What are all those
13 costs? We can't even get for our own citizens now that
14 are suddenly going to be available for burying nuclear
15 wastes somewhere in the north.

16 This province says it can't even afford
17 the health care system we've got. Maybe if it did
18 something about producing nuclear energy in the first
19 place we wouldn't have so many people sick in the
20 hospitals now.

21 What about protecting the health and
22 safety of workers and the people who live in the
23 communities around here?

24 Again this afternoon somebody talked about
25 the relationship between this hearing on high-level



1 nuclear waste burial and the building of the nuclear --
2 the plan to build a nuclear reactor somewhere around
3 Blind River? It's pretty hard for any us to separate
4 those discussions. It's hard to separate a discussion
5 about burial of high-level nuclear waste from all the
6 low-level waste that blows around Elliot Lake all the
7 time. People we know that are dying of chronic
8 obstructive lung disease and other things that are as
9 result of the uranium mining.

10 I know that the Panel members here must
11 have struggled with the questions of the relevance of
12 sitting on this Panel. I know at least one of you very
13 well and I know you're people - some of you at least and
14 I don't know the others of you - are people of honour
15 and people who think a great deal before you take on
16 responsibilities like this. But when you're hearing
17 people over and over and over again tell you that the
18 process isn't good, the terms of reference are too
19 limited, questions of a spiritual nature and value of
20 the land, questions of what's going to happen with the
21 production of nuclear energy at all are not being
22 addressed. Please take it seriously.

23 We have an agenda too. We want to protect
24 our -- like you, our children and our grandchildren and
25 the land. We're speaking to you from that perspective.



1 This Panel is just one of many, many hoops we're made to
2 jump through to try and express our opinions and to try
3 and get some decent discussions around this stuff and
4 every time they break these little deciding places down
5 into smaller and smaller component we get more and more
6 frustrated.

7 I guess I don't really have an awful lot
8 more I want to say except that this is our home and the
9 Precambrian Shield that they're talking about burying
10 this stuff in is something that only God knows what will
11 - happen with it.

12 One the speakers this morning talked
13 about - Richard Thomas I think it was - about hard it
14 would be to get a signature of God on the contract not
15 to disturb the Precambrian Shield for 25,000 years. I
16 think it's worth remembering.

17 I think that this Panel should say that
18 its terms of reference are too narrow; that any
19 environmental assessment of high-level nuclear waste
20 cannot be done in isolation from the questions that have
21 been brought before you and that you cannot, in all
22 conscience, continue to do the job that you're doing.

23 Thank you.

24 THE CHAIRMAN: Thanks very much, Ms.

25 Kuyek.



1 ---Ms. Kuyek withdraws

2 THE CHAIRMAN: Can I ask Kay Chornook to
3 come forward, please.

4 PRESENTATION BY MS. CHORNOOK:

5 Good evening, my name is Kay Chornook and
6 I'm representing Ecovision, which is a woman's
7 collective in the North Bay, Temagami and Temiskaming
8 area that's concerned with a vision of a future that is
9 life giving, life respecting and allows us to celebrate
10 life and not be afraid of it. This can only exist where
11 society makes decisions with total regard for human
12 health, happiness, physicals needs and are placed within
13 the larger global society. We see our vision as needing
14 ecologically sound policy making by each one of us in
15 our homes and in the halls of power.

16 After the many interesting and eloquent
17 presentations heard here today you will find mine quite
18 short. This is possibly because I have stayed within
19 the terms of reference and with these limitations it
20 makes for a shorter presentation. Its also due to the
21 fact that this brief was written as a reference for
22 another purpose and in no way represents the full scope
23 of my commentary on the FEARO process and the AECL
24 concept, but I have decided to present it for what it's
25 worth, if for no other reason than to add my name to the



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1 other northerners presenting here today who want this
2 Panel to understand clearly that we may be a small
3 population, but we care about the quality of our life,
4 the safety of our environment, and the future that is
5 left to our children, and the ecosystems we live within
6 that is perhaps a sane or healthier place than what we
7 seem to be living in now.

8 Dealing directly with the scope of the
9 Environmental Impact Statement, Ecovision has looked at
10 the following issues and concerns apparent in developing
11 the guidelines for this EIS.

12 There is a certain assumption here that we
13 comply with the AECL disposal concept by participating
14 in this process, and it is perhaps more realistic to
15 assume that we are opposed to the limited view taken by
16 AECL in developing this concept that doesn't consider
17 other methods of storage or disposal.

18 Of particular concern are statements made
19 in AECL literature, such as not burdening future
20 generations, and monitoring would be continued as long
21 as the operators, the regulators and the public require
22 assurance.

23 This is to assume that there will be a
24 cut-off point in the future when the general population
25 will accept the risks and possible disastrous results of



1 hiding this waste away in the rock and not want to be
2 concerned further with worrying about this stuff.

3 Is it fair to limit the future
4 generations' control over these lethal fuel wastes,
5 their right to monitor or their accessibility to it?
6 With our great faith in technology should we not be
7 prepared for the possible discovery of new methods of
8 dealing with this waste and not be placing it
9 dangerously out of our reach where we have accepted a
10 number of eventualities such as container breakdown,
11 ground water contamination and the arrival at the
12 biosphere of what may be called minuscule amounts of
13 radioactive particulate but is no less lethal in tiny
14 amounts for at least a million years.

15 The issues are: Containers. Where are
16 these containers to be constructed? Will cost
17 effectiveness factor into decisions of materials used to
18 a greater extent than safety? Where do the materials
19 come from for these containers and the filling
20 materials, ie. titanium, sodium bentonite clay, silica
21 sand. What are the environmental implications of
22 working with these materials?

23 Transferral of waste. With each movement
24 of high-level waste from one location to another there
25 is always a release of radioactivity. What monitoring



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1 system is in effect at each stage of waste transferral?
2 What regulatory body is responsible for this monitoring?
3 What emergency measures are in place to deal with
4 unacceptable levels of radioactive releases? What are
5 the standards by which workers are protected from
6 radioactive exposure? Is it an acceptable risk in
7 AECL's concept that in the transferring of high-level
8 waste there will be amounts of radioactivity released?
9 Are the amounts known?

10 Transportation. Environmental Assessments
11 should be completed along the total route of
12 transporting of high-level waste. What procedures are
13 in place for community participation in these
14 environmental assessments? Will each community that
15 hosts the transportation corridor be supplied with
16 emergency plans, insurance coverage and input into the
17 decision to send these dangerous loads through their
18 municipalities? How will unorganized townships and
19 unpopulated areas be protected and residents have their
20 concerns addressed? What are the projected costs of
21 transporting nuclear waste to a centralized facility?
22 What are the projected risks of the extra steps of
23 transferring waste to a transportation cask, and could
24 these risks be minimalized by having the transportation
25 cask be the same as the disposal canister.



1 Surface facilities. The AECL concept
2 proposes what amounts to an industrial complex at the
3 site of the disposal facility. Their plans call for a
4 container manufacturing plant, used fuel packaging
5 plant, concrete plant, rock crushing plant and disposal
6 vault headframes. What are the environmental impacts of
7 these secondary industries? What secondary
8 non-radioactive waste will be created and how will they
9 be dealt with? What emissions will be emitted from
10 processes in the creation of the titanium containers, et
11 cetera? Where will raw materials come from for these
12 containment needs and can we apply the same regulations
13 concerning transportation, community concerns and waste
14 management to these industries?

15 Reprocessing. AECL should be prepared to
16 dismiss this option from its disposal concept before
17 continuing past the assessment stage.

18 Impacts on workers and public at large.
19 What safety measures will be taken to protect workers at
20 all stages of handling the nuclear waste from
21 radioactive releases? What assurances can be made for
22 the surrounding communities of the disposal site, as
23 well as those along the transportation routes of
24 negative environmental impacts? What emergency plans
25 are developed for dealing with worst case scenarios?



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1 Monitoring. As stated previously, we fail
2 to understand how AECL reconciles the statement,
3 "monitoring would be continued as long as the operators,
4 the regulators and the public require assurance," which
5 comes from a publication listed here, with statements
6 that there will be no postclosure monitoring of the
7 vault. This clearly assumes that the public's concerns
8 will be put to rest with the closure of the disposal
9 vault. Out of sight - out of mind may be a useful
10 cliché for household budgeting but it takes on a much
11 more serious connotation when dealing with deadly
12 nuclear waste that will remain lethal for thousands of
13 years.

14 AECL should be considering the alternative
15 of monitored surface storage which enables the public to
16 respond to potential hazards at the earliest possible
17 moment and have accessibility to these wastes if
18 necessary. Is this a political decision to not deal
19 with these wastes closer to the public eye? Is it hope
20 that the public at large will truly forget that these
21 wastes exist as a forever problem once we have stuck
22 them in an hole and walked away?

23 I would like to add briefly, that I have
24 been working in the northeast over the last five or six
25 weeks with Northwatch attempting to help people prepare



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1 for these scoping hearings. We have been working under
2 a time line that is not conducive to properly informing
3 the public of this issue or these hearings, and people
4 who do not feel well informed certainly will not feel
5 comfortable sitting in this meeting room in front of
6 this mike and speaking to a Panel of people in what
7 could be a threatening atmosphere for many.

8 We found through our workshops that most
9 people are without much information on nuclear energy
10 and nuclear waste, let alone, the AECL concept and the
11 FEARO process. An uninformed public is a handy tool in
12 some societies, but we try to strive for more, don't we?
13 When we pass the knowledge on to people at these
14 workshops they tend to feel many emotions, anger,
15 frustration, fear. Our job was to try to turn these
16 emotions into action and to bring these people here to
17 speak about their concerns, but every step of the way
18 the process was constantly limited by time, by
19 accessibility.

20 The cancelling of the Timmins hearing was
21 true injustice to the public of a large area. Some of
22 them made it here today but many others were further
23 frustrated beyond dealing with the issue of the never
24 ending waste by a process that quickly and neatly
25 excluded them, and those that did come have quite



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1 adequately spoken about the terms of reference and their
2 limitation, and I said this would be short and I'll keep
3 it at that way, but I do agree with comments made
4 earlier by Terry Graves, that I think this waste should
5 be contained somewhere where people will be forced to
6 look at it and deal with it and be aware of its
7 existence and see the direct results of their
8 consumerism.

9 Thank you.

10 THE CHAIRMAN: Any points of clarification
11 from that presentation? Especially the detailed part --

12 MS. CHORNOOK: I added a bit.

13 THE CHAIRMAN: Oh, yes. Quite so. I
14 realize this is part of your presentation, but it is all
15 recorded so it forms part of the record now, not only
16 the written section you have us. Thank very much.

17 ---Ms. Chornook withdraws

18 THE CHAIRMAN: Next on my list is Gary
19 Hrystak. He asked to speak to us.

20 PRESENTATION BY MR. HRYSTAK:

21 Good evening. I'm appearing here on
22 behalf of the Canadian Union of Mine, Mill and Smelter
23 Workers, Local 598 here in Sudbury and as an individual,
24 but at this point I think that what's necessary to be
25 pointed out to this particular Panel, as a preface to



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1 any remarks, is that we came here basically in ignorance
2 that this Panel actually existed until a number of days
3 ago.

4 We feel very strongly that any Panel that
5 goes about Canada's business must publicize itself in a
6 proper manner. We don't know how this was publicized
7 because we don't know anything about it or did not know
8 anything about it until quite a short time ago.

9 I recall, like Homer Seguin, who we
10 understand spoke this morning, and we were not privy to
11 his comment, but undoubtedly with his knowledge he did a
12 fair job from what I hear.

13 Now terms of reference are one thing, and
14 the terms of reference that I read here this evening are
15 very exclusive. It does not provide the basis for
16 proper in depth discussion, it's limiting. It seems to
17 be a typical package put out by governments that want to
18 go over top of things rather than in depth of things and
19 simply say we did it and this is not a reflection of
20 ourselves, and please be assured of that. That I do not
21 take any exception to any person in this Panel, because
22 I'm very sure that each and every one of you, that your
23 intentions are the best. But intentions are one thing
24 and reality is another.

25 We've heard this evening from some of the



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1 First Nations peoples and their concerns, we've heard
2 from those from Manitoulin Island and the concerns that
3 they have. Now you're going to hear of our concerns.

4 It seems that these waste products are to
5 be buried right in the rocks because they are
6 geologically sound. I'd like this Panel to take into
7 consideration an event that happened here in Sudbury in
8 1984 when the sound rock of a nickel mine burst, killing
9 four miners, in a sound mine.

10 I would like to take to you to other rock
11 bursts that have occurred. As a matter of fact in the
12 Creighton mine, very recently, where the new heavy water
13 pit is to study neutrinos. Ground movement is ground
14 movement and in Hawaii they say that Pelai (phonetic)
15 moves as Pelai moves. She is the goddess of volcanoes
16 in Hawaii. Here in Ontario in the mining industry, we
17 know that we cannot say when ground will move or in
18 which direction it will move.

19 We've seen containers on The National
20 subjected to locomotives run into them, being flipped
21 over on the piggy backs of transport trucks and
22 surviving intact, but unfortunately we have also seen
23 earthquakes and the destructions that they cause in the
24 instability of the earth shell.

25 We're not talking about something here



1 that we put in the ground today and it becomes neutral
2 tomorrow. We're talking about things that have half
3 lives in thousands of years.

4 The necessity of having energy from these
5 is only necessary because of what we perceive our future
6 to be and I have to agree with our friends from the
7 First Nations, that if we had listened a long time ago
8 we may not have needed nuclear energy today.

9 But again our intentions are the best.
10 Hindsight is always 20/20 and would I suggest to you
11 that these hearings that you are now going through
12 across this country, and across this province would
13 serve as your 20/20. Brian Mulroney sits today with a
14 very, very low popularity poll and I believe that if he
15 had used his background knowledge that this would not
16 have happened, and I'm hoping that this Panel will look
17 at what people are saying as being an important aspect
18 of their 20/20 recollection.

19 One has to remember that one is not only
20 talking about simply the storage of a "spent fuel." One
21 is talking about a decomposition of these particular
22 elements. About the radon gases that are produced. How
23 these sub micron particles move through the smallest of
24 cracks in rocks and get into the water tables and how
25 they change and how they evolve into something we may



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1 not even know.

2 As a compensation officer for Mine, Mill
3 and Smelter Workers Union, I'm very well aware of the
4 cancerous effects of radon daughters, and I have seen
5 firsthand a number of times the ravages of this
6 insidious disease on human beings.

7 My wife and daughter are in this audience,
8 they might have some friends here also, and I hope that
9 I would never have to visit them because this Panel did
10 not use a proper 20/20, even though they're intentions
11 were the best.

12 We of the Canadian Union of Mine, Mill and
13 Smelter Workers, do not condemn nuclear power, what we
14 do is condemn anything that the final results are not
15 calculated into the whole. In other words if you don't
16 know what to do with your garbage why produce it in the
17 first place.

18 There are more and better ways to do
19 things. There are monies that can be spent in solar and
20 I understand, of course, that I'm now outside of your
21 terms of reference and that I'm probably incompatible
22 with your terms of reference because I'm now not
23 speaking with Canada's energy policy. But the one thing
24 I agree with Mr. Greenspoon is, this must be
25 inquisitorial but you must listen, and the governments



1 must listen because there are more Canadians against
2 this particular proposal than there are for it.

3 The Ontario Mining Association is for it
4 and in conversation with them in the past we've heard
5 just how strongly they are for it because they have a
6 vested interest. They say keep it in the heavy water
7 until it can be probably disposed of in granite tombs,
8 but I think the ancient egyptians tried to put their
9 people in granite tombs and they were supposed to last
10 forever, but I think the same thing would happen with
11 granite. Nothing's forever.

12 So on that particular note we would offer
13 you that unless there is a more acceptable method of
14 disposal of waste, more acceptable than putting it into
15 our ground, putting it into mother earth, then nuclear
16 energy is not acceptable in any of its forms,
17 unfortunately, even though it may be necessary.

18 I thank you very much.

19 THE CHAIRMAN: Thank you, Mr. Hrystak.

20 ---Mr. Hrystak withdraws

21 THE CHAIRMAN: I have next on our list
22 Merva McQuade, who has asked to speak to us.

23 PRESENTATION BY MS. McQUADE:

24 Hi, I'm just a concerned regular person.
25 I didn't really have a whole lot of notice about this



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1 either.

2 It seems to me every day - I work in
3 television - every day I watch TV and you're telling me
4 about this nuclear, how wonderful it is. How is doesn't
5 create acid rain and I don't know if I'm in these terms,
6 sorry. I don't know if I'm inside your terms either.
7 I'm just going to say what I feel needs to be said and
8 if I'm getting in the wrong areas just tell me. I'm
9 sure you will.

10 I work in television. Every day I see
11 these nuclear commercials telling me how wonderful it
12 is, there's no global warming effects from it and I can
13 also see where we definitely have a problem is in the
14 stuff is here. The stuff has to go somewhere. The
15 unfortunate thing is that nobody wants it and we seem to
16 keep creating it. It just -- it seems really, really
17 insane, in general.

18 I think maybe more people would have been
19 here if more people had been aware and I think there are
20 also a lot of regular people who vote in their
21 governments assuming that they're going to do the best
22 jobs they can do to protect the people in general,
23 because most people are basically just trying to get
24 through day to day life, let alone having to worry about
25 the immensity of this problem.



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1 My basic concern is the water in general.
2 We're running out of it now. It's a major -- I'm
3 really, really, incredibly confused because I know this
4 stuff is here. That bothers me. Because you guys are
5 sitting here and we're sitting here and it's like well
6 we don't want it, nobody wants it, so what are we
7 supposed to do with it. I mean it's sitting there in
8 pools just -- it's in worse shape sitting in these pools
9 than not doing something with it, but I don't know what
10 to tell you what to do with it. My husband thought we
11 shoot it into the sun. Would that work? Like I don't
12 know. I'm just saying maybe -- buried in the ground or
13 send it out into the universe, basically I think what
14 the problem is, is that it is here and we have to do
15 something with it and I can't, just as regular person,
16 sit here and try and tell you guys what you should be
17 doing with it because I'm assuming that there are
18 professionals out there who are supposed to be doing
19 this stuff.

20 My major concern is the water. Water is
21 pretty major and if you guys are going to be shoving
22 this stuff down into the water table it's eventually
23 going to come back out.

24 I think in one of these books you have out
25 it says that, that it is eventually -- it won't stay



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1 down there. It isn't going to stay down there. It
2 isn't. But then again I can see your problem as to
3 where the hell you gonna put it? It has to go
4 somewhere. And I can't personally help you with that,
5 but I can certainly voice my concerns I understand your
6 problem, but gee, why are we still making this stuff?

7 I think my basic point is why do we
8 continue creating something that is just creating more
9 problems than we can deal with? I guess. That's
10 probably all about all I have to say other than the
11 water. The water's my major concern, the containers,
12 the transportation, but mostly for me it's the water. I
13 mean without water forget it. We'll all be dead. We'll
14 all probably be dead -- everybody here will probably be
15 dead before this even comes to some sort of a
16 conclusion, but doesn't that mean it certainly shouldn't
17 be looked at, and I guess that's all.

18 But I wish you'd look into other areas
19 rather than just burying it. I think that there is a
20 cost factor here too, obviously.

21 I don't know. I can just mumble on
22 forever. I guess my basic concern is the water and I
23 understand that you do have a problem but I wish you'd
24 stop making it so we can just get rid of the problem we
25 have and not keep creating the same damn problem.



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1 Thank you.

2 THE CHAIRMAN: Thank you very much.

3 ---Ms. McQuade withdraws

4 THE CHAIRMAN: The final person I have on
5 the list now, though I will call for additions later, is
6 Chief Max Assinewai of the Sheguiandah First Nation, and
7 if I have not pronounced it correctly please tell me,
8 Chief.

9 PRESENTATION BY CHIEF ASSINEWAI:

10 Bonjour.

11 --- (Introduction in Ojibway)

12 It's one of the things with that
13 introduction I'd like to -- for the people that do
14 understand the language. Somebody who mentioned the
15 Francophone language. I'd like to really bring that
16 focus out that as a Chief of the First Nation I have to
17 do that, which is following protocol I guess.

18 Some of the things I'd like to address to
19 the Panel and if they bear with me for whatever length
20 of time they have, is I'd like to take them through
21 history a little bit and all the heated discussions that
22 are going on with Atomic Energy and waste that people
23 are concerned about.

24 In this time in history it's 1990. We
25 have got a segment that's going to be two years old



1 pretty soon, 1992. This is the date that I'm referring
2 to, 1992.

3 I'd like address my concern as a leader
4 among our people both in the political field, also in
5 the spiritual concept of our people, the Anishinaabe
6 people in this area. I'd like address this to the
7 visitors that are here when they talk about our country,
8 when they talk about our resources.

9 In our mandate as Anishinaabe people, we
10 were given the opportunity to look after this land. I
11 know its going to be another one of those ho hum history
12 lessons, but as a people we have that obligation to
13 fulfill.

14 Some of the things that I'm going to be
15 talking of were handed down orally for many generations
16 and in doing so I feel justified that with this
17 assessment that I'm doing justice for seven generations
18 ahead. Not only would this limit the present scope that
19 we see as our lives which stems 60 years. If you look
20 at seven generations ahead that's how long that we have
21 to take into consideration whatever move we make for our
22 people within our country.

23 This area you talk of where waste
24 management is concerned, I think direction should be
25 given to the First Nations that are within this area

